# **SCORE Search Results Details for Application** 10743384 and Search Result us-10-743-384-2.szim60.rnpbm.

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GenCore version 5.1.9
                    Copyright (c) 1993 - 2006 Biocceleration Ltd.
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                  July 26, 2006, 15:59:07; Search time 622.366 Seconds
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#### ALIGNMENTS

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; APPLICANT: Rothman, Richard
              Yang, Samuel
  APPLICANT:
  APPLICANT:
              Lin, Shin
  APPLICANT: Kelen, Gabor
  TITLE OF INVENTION: Quantitative Assay for the Simultaneous Detection and Speciation of
  TITLE OF INVENTION:
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  FILE REFERENCE: 001107.00234
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  PRIOR FILING DATE: 2001-03-01
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; GENERAL INFORMATION:
  APPLICANT: Rothman, Richard
  APPLICANT: Yang, Samuel
  APPLICANT: Lin, Shin
  APPLICANT: Kelen, Gabor
  TITLE OF INVENTION: Quantitative Assay for the Simultaneous Detection and Speciation of
  TITLE OF INVENTION: Bacterial Infections
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  APPLICANT: Rothman, Richard
  APPLICANT: Yang, Samuel
  APPLICANT: Lin, Shin
APPLICANT: Kelen, Gabor
  TITLE OF INVENTION: Quantitative Assay for the Simultaneous Detection and Speciation of
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                       Bacterial Infections
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; APPLICANT: Yang, Samuel
; APPLICANT: Lin, Shin ; APPLICANT: Kelen, Gabor
  TITLE OF INVENTION: Quantitative Assay for the Simultaneous Detection and Speciation of
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 APPLICANT: Becker, Michael M.
 APPLICANT: Nelson, No. US20030105320A1man C.
  TITLE OF INVENTION: Affinity-Shifted Probes for Quantifying TITLE OF INVENTION: Analyte Polynucleotides
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  APPLICANT: Iversen, Patrick L.
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APPLICANT: BECKER, Michael M.
  TITLE OF INVENTION: METHOD AND KIT FOR ENHANCING THE ASSOCIATION RATES OF POLYNUCLEOTIDES
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; APPLICANT: Ecker, David J.
  APPLICANT: Griffey, Richard H.
; APPLICANT: Sampath, Rangarajan
; APPLICANT: Hofstadler, Steven
  APPLICANT: McNeil, John
APPLICANT: Crooke, Stanley T.
   TITLE OF INVENTION: Methods For Rapid Identification Of Pathogens In Humans And Animals
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; APPLICANT: TORA, CHRISTELLE
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  APPLICANT: BECKER, MICHAEL M.
  APPLICANT: BROWNE, KENNETH A.
APPLICANT: FRIEDENBERG, MATTHEW C.
  APPLICANT: HAJJAR, FRED F.
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; APPLICANT: LAAYOUN, ALI
  APPLICANT: MENOU, LIONEL APPLICANT: TORA, CHRISTELLE
; APPLICANT: BANERJEE, ALOKE R.
```

```
; APPLICANT: BECKER, MICHAEL M.
 APPLICANT: BROWNE, KENNETH A.
APPLICANT: FRIEDENBERG, MATTHEW C.
 APPLICANT: HAJJAR, FRED F.
  TITLE OF INVENTION: PROCESS FOR LABELING A NUCLEIC ACID
  FILE REFERENCE: 104959
  CURRENT APPLICATION NUMBER: US/09/736,151
  CURRENT FILING DATE: 2000-12-15
   PRIOR APPLICATION NUMBER: US 60/172,136
  PRIOR FILING DATE: 1999-12-17
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    OTHER INFORMATION: Description of Artificial Sequence:primer; the
    OTHER INFORMATION: phosphate between nucleotides at positions 16 and
    OTHER INFORMATION: 17 is a thiophosphate
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; Sequence 6, Application US/09736151
; Patent No. US20020081586A1
; GENERAL INFORMATION:
; APPLICANT: LAAYOUN, ALI
 APPLICANT: MENOU, LIONEL
 APPLICANT: TORA, CHRISTELLE
  APPLICANT: BANERJEE, ALOKE R. APPLICANT: BECKER, MICHAEL M.
; APPLICANT: BROWNE, KENNETH A.
  APPLICANT: FRIEDENBERG, MATTHEW C. APPLICANT: HAJJAR, FRED F.
  TITLE OF INVENTION: PROCESS FOR LABELING A NUCLEIC ACID
  FILE REFERENCE: 104959
   CURRENT APPLICATION NUMBER: US/09/736,151
  CURRENT FILING DATE: 2000-12-15
 PRIOR APPLICATION NUMBER: US 60/172,136
   PRIOR FILING DATE: 1999-12-17
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    OTHER INFORMATION: thiophosphate
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; GENERAL INFORMATION:
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; APPLICANT: LAAYOUN, ALI
  APPLICANT: MENOU, LIONEL
  APPLICANT: TORA, CHRISTELLE
  APPLICANT: BANERJEE, ALOKE R.
  APPLICANT: BECKER, MICHAEL M. APPLICANT: BROWNE, KENNETH A.
  APPLICANT: FRIEDENBERG, MATTHEW C.
  APPLICANT: HAJJAR, FRED F.
  TITLE OF INVENTION: PROCESS FOR LABELING A NUCLEIC ACID
  FILE REFERENCE: 104959
  CURRENT APPLICATION NUMBER: US/09/736,151
  CURRENT FILING DATE: 2000-12-15
  PRIOR APPLICATION NUMBER: US 60/172,136
  PRIOR FILING DATE: 1999-12-17
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  SOFTWARE: PatentIn Ver. 2.1
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    OTHER INFORMATION: 16 and 17 is a thiophosphate
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; Sequence 8, Application US/09736151
; Patent No. US20020081586A1
 GENERAL INFORMATION:
  APPLICANT: LAAYOUN, ALI
  APPLICANT: MENOU, LIONEL
  APPLICANT: TORA, CHRISTELLE APPLICANT: BANERJEE, ALOKE R.
  APPLICANT: BECKER, MICHAEL M.
  APPLICANT: BROWNE, KENNETH A.
APPLICANT: FRIEDENBERG, MATTHEW C.
  APPLICANT: HAJJAR, FRED F.
  TITLE OF INVENTION: PROCESS FOR LABELING A NUCLEIC ACID
  FILE REFERENCE: 104959
  CURRENT APPLICATION NUMBER: US/09/736,151
  CURRENT FILING DATE: 2000-12-15
  PRIOR APPLICATION NUMBER: US 60/172,136
  PRIOR FILING DATE: 1999-12-17
  NUMBER OF SEQ ID NOS: 11
  SOFTWARE: PatentIn Ver. 2.1
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   LENGTH: 26
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   ORGANISM: Artificial Sequence
   FEATURE:
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   OTHER INFORMATION: thiophosphate
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US-09-736-151-9
; Sequence 9, Application US/09736151
; Patent No. US20020081586A1
; GENERAL INFORMATION:
; APPLICANT: LAAYOUN, ALI
  APPLICANT: MENOU, LIONEL
; APPLICANT: TORA, CHRISTELLE
; APPLICANT: BANERJEE, ALOKE R.
  APPLICANT: BECKER, MICHAEL M.
  APPLICANT: BROWNE, KENNETH A.
  APPLICANT: FRIEDENBERG, MATTHEW C. APPLICANT: HAJJAR, FRED F.
  TITLE OF INVENTION: PROCESS FOR LABELING A NUCLEIC ACID
  FILE REFERENCE: 104959
  CURRENT APPLICATION NUMBER: US/09/736,151
  CURRENT FILING DATE: 2000-12-15
  PRIOR APPLICATION NUMBER: US 60/172,136
  PRIOR FILING DATE: 1999-12-17
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; Sequence 1, Application US/09808558
; Publication No. US20030036058A1
    GENERAL INFORMATION:
        APPLICANT: Becker, Michael M.
                    Majlessi, Mehrdad
        TITLE OF INVENTION: METHODS FOR DETECTING AND
                             AMPLIFYING NUCLEIC ACID SEQUENCES USING MODIFIED
                             OLIGONUCLEOTIDES HAVING INCREASED TARGET SPECIFIC TM
         NUMBER OF SEQUENCES: 2
         CORRESPONDENCE ADDRESS:
              ADDRESSEE: Gen-Probe Incorporated
              STREET: 10210 Genetic Center Drive
              CITY: San Diego
              STATE: CA
              COUNTRY: USA
              ZIP: 92121
         COMPUTER READABLE FORM:
              MEDIUM TYPE: Diskette
              COMPUTER: IBM Compatible
              OPERATING SYSTEM: DOS
              SOFTWARE: FastSEQ for Windows Version 2.0
         CURRENT APPLICATION DATA:
              APPLICATION NUMBER: US/09/808,558
              FILING DATE: 14-Mar-2001
              CLASSIFICATION:
         PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US/08/893,300
              FILING DATE: 15-JUL-1997
              APPLICATION NUMBER: 60/021,818
              FILING DATE: 15-JUL-1996
         ATTORNEY/AGENT INFORMATION:
              NAME: Cappellari, Charles B
              REGISTRATION NUMBER: 40,937
              REFERENCE/DOCKET NUMBER: CHE7B-P01A01
         TELECOMMUNICATION INFORMATION:
              TELEPHONE: 619-410-8927
              TELEFAX: 619-410-8928
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             TOPOLOGY: linear
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RESULT 18
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        APPLICANT: Becker, Michael M.
                   Majlessi, Mehrdad
        TITLE OF INVENTION: METHODS FOR DETECTING AND
                            AMPLIFYING NUCLEIC ACID SEQUENCES USING MODIFIED
                            OLIGONUCLEOTIDES HAVING INCREASED TARGET SPECIFIC TM
        NUMBER OF SEQUENCES: 2
        CORRESPONDENCE ADDRESS:
             ADDRESSEE: Gen-Probe Incorporated
             STREET: 10210 Genetic Center Drive
             CITY: San Diego
             STATE: CA
             COUNTRY: USA
             ZIP: 92121
        COMPUTER READABLE FORM:
             MEDIUM TYPE: Diskette
             COMPUTER: IBM Compatible
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             SOFTWARE: FastSEQ for Windows Version 2.0
        CURRENT APPLICATION DATA:
             APPLICATION NUMBER: US/09/808,558
             FILING DATE: 14-Mar-2001
             CLASSIFICATION:
        PRIOR APPLICATION DATA:
             APPLICATION NUMBER: US/08/893,300
             FILING DATE: 15-JUL-1997
             APPLICATION NUMBER: 60/021,818
             FILING DATE: 15-JUL-1996
        ATTORNEY/AGENT INFORMATION:
             NAME: Cappellari, Charles B
             REGISTRATION NUMBER: 40,937
             REFERENCE/DOCKET NUMBER: CHE7B-P01A01
        TELECOMMUNICATION INFORMATION:
             TELEPHONE: 619-410-8927
             TELEFAX: 619-410-8928
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   INFORMATION FOR SEQ ID NO: 2:
        SEQUENCE CHARACTERISTICS:
             LENGTH: 26 base pairs
             TYPE: nucleic acid
             STRANDEDNESS: single
             TOPOLOGY: linear
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  APPLICANT: BECKER, Michael M.
  TITLE OF INVENTION: METHOD AND KIT FOR ENHANCING THE ASSOCIATION RATES OF POLYNUCLEOTIDES
  FILE REFERENCE: GP123-02.UT
  CURRENT APPLICATION NUMBER: US/10/020,596
  CURRENT FILING DATE: 2001-12-07
  PRIOR APPLICATION NUMBER: 60/255,535
  PRIOR FILING DATE: 2000-12-14
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; Sequence 2, Application US/10020596
; Publication No. US20020164614A1
; GENERAL INFORMATION:
; APPLICANT: BECKER, Michael M.
  TITLE OF INVENTION: METHOD AND KIT FOR ENHANCING THE ASSOCIATION RATES OF POLYNUCLEOTIDES
  FILE REFERENCE: GP123-02.UT
  CURRENT APPLICATION NUMBER: US/10/020,596
  CURRENT FILING DATE: 2001-12-07
  PRIOR APPLICATION NUMBER: 60/255,535
  PRIOR FILING DATE: 2000-12-14
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SCORE 1.3 BuildDate: 12/06/2005
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## **SCORE Search Results Details for Application** 10743384 and Search Result us-10-743-384-2.szlm60.rni.

Score Home Page

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**SCORE System** Overview

SCORE FAQ

Comments / Suggestions

This page gives you Search Results detail for the Application 10743384 and Search Result us-10-743-384-2.szlm60.rni.

<u>start</u>

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GenCore version 5.1.9 Copyright (c) 1993 - 2006 Biocceleration Ltd.

OM nucleic - nucleic search, using sw model

Run on:

July 26, 2006, 15:54:56; Search time 70.439 Seconds (without alignments)

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Title: US-10-743-384-2

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Listing first 60 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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#### ALIGNMENTS

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; Patent No. 6699670
 GENERAL INFORMATION:
  APPLICANT: Rothman, Richard
  APPLICANT: Yang, Samuel
  APPLICANT:
              Lin, Shin
  APPLICANT: Kelen, Gabor
  TITLE OF INVENTION: Quantitative Assay for the Simultaneous Detection and Speciation of
  TITLE OF INVENTION:
                       Bacterial Infections
  FILE REFERENCE: 001107.00234
  CURRENT APPLICATION NUMBER: US/10/085,134A
  CURRENT FILING DATE:
                        2002-03-01
  PRIOR APPLICATION NUMBER: 60/272,642
  PRIOR FILING DATE: 2001-03-01
  NUMBER OF SEQ ID NOS: 24
  SOFTWARE: PatentIn version 3.1
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; Patent No. 6699670
; GENERAL INFORMATION:
  APPLICANT: Rothman, Richard
  APPLICANT: Yang, Samuel
  APPLICANT: Lin, Shin
  APPLICANT: Kelen, Gabor
  TITLE OF INVENTION: Quantitative Assay for the Simultaneous Detection and Speciation of
  TITLE OF INVENTION: Bacterial Infections
  FILE REFERENCE: 001107.00234
  CURRENT APPLICATION NUMBER: US/10/085,134A
  CURRENT FILING DATE: 2002-03-01
  PRIOR APPLICATION NUMBER: 60/272,642
  PRIOR FILING DATE: 2001-03-01
  NUMBER OF SEQ ID NOS: 24
  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 8
   LENGTH: 19
    TYPE: DNA
    ORGANISM: Staphylococcus aureus
US-10-085-134A-8
                         100.0%; Score 19; DB 3; Length 19; 100.0%; Pred. No. 0.29;
 Query Match
  Best Local Similarity
 Matches 19; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
           1 TGCGGGACTTAACCCAACA 19
              111111111111111111
          19 TGCGGGACTTAACCCAACA 1
RESULT 3
US-09-726-774-25
; Sequence 25, Application US/09726774
; Patent No. 6677153
; GENERAL INFORMATION:
  APPLICANT: Iversen, Patrick L.
  TITLE OF INVENTION: Antisense Antibacterial Method and
; · TITLE OF INVENTION: __Composition
  FILE REFERENCE: 0450-0032.30
   CURRENT APPLICATION NUMBER: US/09/726,774
   CURRENT FILING DATE: 2000-11-29
  PRIOR APPLICATION NUMBER: US 60/168,150
  PRIOR FILING DATE: 1999-11-29
  NUMBER OF SEQ ID NOS: 139
   SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 25
    LENGTH: 21
    TYPE: DNA
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: antisense oligomer
US-09-726-774-25
  Query Match
                          100.0%; Score 19; DB 3; Length 21;
                          100.0%; Pred. No. 0.3;
  Best Local Similarity
                                                   0: Indels
                                                                 0: Gaps
                                                                             0;
                                 0; Mismatches
  Matches
           19; Conservative
            1 TGCGGGACTTAACCCAACA 19
Ον
```

```
11111111111111111111
Db
            2 TGCGGGACTTAACCCAACA 20
RESULT 4
US-08-478-221-5
; Sequence 5, Application US/08478221
; Patent No. 5731148
  GENERAL INFORMATION:
    APPLICANT: Michael Becker
     APPLICANT: No. 5731148man C. Nelson
     TITLE OF INVENTION: ADDUCT PROTECTION ASSAY
    NUMBER OF SEQUENCES: 14
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Lyon & Lyon
       STREET: 633 West Fifth Street
       STREET: Suite 4700
      CITY: Los Angeles
STATE: California
      COUNTRY: U.S.A.
      ZIP: 90071-2066
    COMPUTER READABLE FORM:
      MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
      MEDIUM TYPE: storage
      COMPUTER: IBM Compatible
      OPERATING SYSTEM: IBM P.C. DOS 5.0
      SOFTWARE: Word Perfect 5.1
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/478,221
       FILING DATE: June 7, 1995
      CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
     PRIOR APPLICATION DATA: including application
     PRIOR APPLICATION DATA: described below:
                                                          No. 5731148e
    ATTORNEY/AGENT INFORMATION:
       NAME: Heber, Sheldon O.
       REGISTRATION NUMBER: 38,179
      REFERENCE/DOCKET NUMBER: 209/190
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (213) 489-1600
      TELEFAX: (213) 955-0440
      TELEX: 67-3510
   INFORMATION FOR SEQ ID NO: 5:
    SEQUENCE CHARACTERISTICS:
       LENGTH: 26 base pairs
      TYPE: nucleic acid
       STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: nucleic acid
US-08-478-221-5
                         100.0%; Score 19; DB 2; Length 26; 100.0%; Pred. No. 0.31;
  Query Match
  Best Local Similarity
 Matches 19; Conservative
                                0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
           1 TGCGGGACTTAACCCAACA 19
              7 TGCGGGACTTAACCCAACA 25
RESULT 5
US-08-478-221-6/c
; Sequence 6, Application US/08478221
; Patent No. 5731148
  GENERAL INFORMATION:
     APPLICANT: Michael Becker
     APPLICANT: No. 5731148man C. Nelson
    TITLE OF INVENTION: ADDUCT PROTECTION ASSAY NUMBER OF SEQUENCES: 14
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Lyon & Lyon
       STREET: 633 West Fifth Street
       STREET: Suite 4700
      CITY: Los Angeles
STATE: California
       COUNTRY: U.S.A.
```

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ZIP: 90071-2066
    COMPUTER READABLE FORM:
      MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
      MEDIUM TYPE: storage
      COMPUTER: IBM Compatible
      OPERATING SYSTEM: IBM P.C. DOS 5.0
       SOFTWARE: Word Perfect 5.1
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/478,221
      FILING DATE: June 7, 1995
      CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
     PRIOR APPLICATION DATA: including application
     PRIOR APPLICATION DATA: described below:
                                                           No. 5731148e
    ATTORNEY/AGENT INFORMATION:
      NAME: Heber, Sheldon O.
       REGISTRATION NUMBER: 38,179
       REFERENCE/DOCKET NUMBER: 209/190
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (213) 489-1600
      TELEFAX: (213) 955-0440
      TELEX: 67-3510
   INFORMATION FOR SEQ ID NO: 6:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 26 base pairs
      TYPE: nucleic acid
       STRANDEDNESS: single
       TOPOLOGY: linear
    MOLECULE TYPE: nucleic acid
US-08-478-221-6
                          100.0%; Score 19; DB 2; Length 26;
  Best Local Similarity 100.0%; Pred. No. 0.31;
  Matches 19; Conservative 0; Mismatches
                                                  0; Indels
                                                                  0; Gaps
           1 TGCGGGACTTAACCCAACA 19
              3141111111111111
           20 TGCGGGACTTAACCCAACA 2
Dh
RESULT 6
US-08-478-221-11
; Sequence 11, Application US/08478221
; Patent No. 5731148
; GENERAL INFORMATION:
    APPLICANT: Michael Becker
APPLICANT: No. 5731148man C. Nelson
    TITLE OF INVENTION: ADDUCT PROTECTION ASSAY
    NUMBER OF SEQUENCES: 14
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Lyon & Lyon
      STREET: 633 West Fifth Street
STREET: Suite 4700
      CITY: Los Angeles
STATE: California
      COUNTRY: U.S.A.
      ZIP: 90071-2066
    COMPUTER READABLE FORM:
      MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
MEDIUM TYPE: storage
      COMPUTER: IBM Compatible
      OPERATING SYSTEM: IBM P.C. DOS 5.0
      SOFTWARE: Word Perfect 5.1
    CURRENT APPLICATION DATA:
    . APPLICATION NUMBER: US/08/478,221 FILING DATE: June 7, 1995
      CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
     PRIOR APPLICATION DATA:
                              including application
     PRIOR APPLICATION DATA: described below:
                                                           No. 5731148e
    ATTORNEY/AGENT INFORMATION:
      NAME: Heber, Sheldon O.
      REGISTRATION NUMBER: 38,179
      REFERENCE/DOCKET NUMBER: 209/190
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (213) 489-1600
```

```
TELEFAX: (213) 955-0440
      TELEX: 67-3510
   INFORMATION FOR SEQ ID NO: 11:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 26 base pairs
      TYPE: nucleic acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: nucleic acid
US-08-478-221-11
  Query Match
                          100.0%; Score 19; DB 2; Length 26;
  Best Local Similarity 84.2%; Pred. No. 0.31;
                                3; Mismatches
 Matches 16; Conservative
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
           1 TGCGGGACTTAACCCAACA 19
             7 UGCGGGACUUAACCCAACA 25
RESULT 7
US-08-478-221-12/c
; Sequence 12, Application US/08478221
; Patent No. 5731148
  GENERAL INFORMATION:
    APPLICANT: Michael Becker
    APPLICANT: No. 5731148man C. Nelson
    TITLE OF INVENTION: ADDUCT PROTECTION ASSAY NUMBER OF SEQUENCES: 14
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Lyon & Lyon
      STREET: 633 West Fifth Street
      STREET: Suite 4700
      CITY: Los Angeles
STATE: California
      COUNTRY: U.S.A.
      ZIP: 90071-2066
    COMPUTER READABLE FORM:
      MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
      MEDIUM TYPE: storage
      COMPUTER: IBM Compatible
      OPERATING SYSTEM: IBM P.C. DOS 5.0
      SOFTWARE: Word Perfect 5.1
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/478,221
      FILING DATE: June 7, 1995
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
    PRIOR APPLICATION DATA: including application
    PRIOR APPLICATION DATA:
                             described below:
                                                          No. 5731148e
    ATTORNEY/AGENT INFORMATION:
      NAME: Heber, Sheldon O.
      REGISTRATION NUMBER: 38,179
      REFERENCE/DOCKET NUMBER: 209/190
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (213) 489-1600
      TELEFAX: (213) 955-0440
      TELEX: 67-3510
  INFORMATION FOR SEQ ID NO: 12:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 26 base pairs
      TYPE: nucleic acid
      STRANDEDNESS: single
      TOPOLOGY: linear
    MOLECULE TYPE: nucleic acid
US-08-478-221-12
 Query Match 100.0%; Score 19; DB 2; Length 26; Best Local Similarity 100.0%; Pred. No. 0.31;
 Matches 19; Conservative
                              0; Mismatches
                                                   0; Indels
Qy
           1 TGCGGGACTTAACCCAACA 19
              11111111111111111111111
Db
           20 TGCGGGACTTAACCCAACA 2
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```
RESULT 8
US-08-475-334-1
; Sequence 1, Application US/08475334
; Patent No. 5879885
  GENERAL INFORMATION:
    APPLICANT: Becker, Michael M.
    TITLE OF INVENTION: MICELLE PROTECTION ASSAY
    NUMBER OF SEQUENCES: 13
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Gen-Probe Incorporated
      STREET: 9880 Campus Point Drive
      CITY: San Diego
      STATE: CA
      COUNTRY: USA
      ZIP: 92121
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette
      COMPUTER: IBM Compatible
      OPERATING SYSTEM: DOS
      SOFTWARE: FastSEQ Version 1.5
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/475,334
      FILING DATE:
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:
      FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Fisher, Carlos A
      REGISTRATION NUMBER: 36,510
      REFERENCE/DOCKET NUMBER: GP94009
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 619-535-2807
      TELEFAX: 619-546-7929
      TELEX:
  INFORMATION FOR SEQ ID NO: 1:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 26 base pairs
      TYPE: nucleic acid
      STRANDEDNESS: single
      TOPOLOGY: linear
US-08-475-334-1
                         100.0%; Score 19; DB 2; Length 26;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 0.31;
                               0; Mismatches
                                                 0; Indels
                                                               0; Gaps
          19; Conservative
Qу
           1 TGCGGGACTTAACCCAACA 19
             7 TGCGGGACTTAACCCAACA 25
Db
RESULT 9
US-08-475-334-2/c
; Sequence 2, Application US/08475334
; Patent No. 5879885
  GENERAL INFORMATION:
     APPLICANT: Becker, Michael M.
     TITLE OF INVENTION: MICELLE PROTECTION ASSAY
     NUMBER OF SEQUENCES: 13
     CORRESPONDENCE ADDRESS:
      ADDRESSEE: Gen-Probe Incorporated
      STREET: 9880 Campus Point Drive
      CITY: San Diego
      STATE: CA
      COUNTRY: USA
      ZIP: 92121
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette
      COMPUTER: IBM Compatible
      OPERATING SYSTEM: DOS
      SOFTWARE: FastSEQ Version 1.5
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/475,334
       FILING DATE:
      CLASSIFICATION: 435
```

```
PRIOR APPLICATION DATA:
      APPLICATION NUMBER:
      FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Fisher, Carlos A
      REGISTRATION NUMBER: 36,510
      REFERENCE/DOCKET NUMBER: GP94009
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 619-535-2807
      TELEFAX: 619-546-7929
      TELEX:
   INFORMATION FOR SEQ ID NO: 2:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 26 base pairs
       TYPE: nucleic acid
       STRANDEDNESS: single
      TOPOLOGY: linear
US-08-475-334-2
                         100.0%; Score 19; DB 2; Length 26; 100.0%; Pred. No. 0.31;
  Query Match
  Best Local Similarity
                                0; Mismatches
 Matches 19; Conservative
                                                   0; Indels
                                                                 0; Gaps
           1 TGCGGGACTTAACCCAACA 19
Qγ
              11111111111111111111
          20 TGCGGGACTTAACCCAACA 2
RESULT 10
US-09-094-139-1
; Sequence 1, Application US/09094139
; Patent No. 6059561
  GENERAL INFORMATION:
    APPLICANT: Becker, Michael M.
    TITLE OF INVENTION: MICELLE PROTECTION ASSAY
    NUMBER OF SEQUENCES: 13
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Gen-Probe Incorporated
      STREET: 9880 Campus Point Drive
      CITY: San Diego
STATE: CA
      COUNTRY: USA
      ZIP: 92121
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette
      COMPUTER: IBM Compatible
      OPERATING SYSTEM: DOS
      SOFTWARE: FastSEQ Version 1.5
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/094,139
      FILING DATE:
      CLASSIFICATION:
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/475,334
      FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Fisher, Carlos A
      REGISTRATION NUMBER: 36,510
      REFERENCE/DOCKET NUMBER:
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 619-535-2807
      TELEFAX: 619-546-7929
      TELEX:
  INFORMATION FOR SEQ ID NO: 1:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 26 base pairs
      TYPE: nucleic acid
      STRANDEDNESS: single
      TOPOLOGY: linear
US-09-094-139-1
                         100.0%; Score 19; DB 3; Length 26;
 Best Local Similarity 100.0%; Pred. No. 0.31;
                                0; Mismatches
                                                 0; Indels
                                                                 0; Gaps
 Matches 19; Conservative
                                                                             0:
           1 TGCGGGACTTAACCCAACA 19
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11111111111111111111
Db
            7 TGCGGGACTTAACCCAACA 25
RESULT 11
US-09-094-139-2/c
; Sequence 2, Application US/09094139
; Patent No. 6059561
  GENERAL INFORMATION:
     APPLICANT: Becker, Michael M.
     TITLE OF INVENTION: MICELLE PROTECTION ASSAY
     NUMBER OF SEQUENCES: 13
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Gen-Probe Incorporated
       STREET: 9880 Campus Point Drive
       CITY: San Diego
       STATE: CA
       COUNTRY: USA
      ZIP: 92121
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette
       COMPUTER: IBM Compatible
      OPERATING SYSTEM: DOS
      SOFTWARE: FastSEQ Version 1.5
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/09/094,139
      FILING DATE:
       CLASSIFICATION:
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/08/475,334
       FILING DATE:
     ATTORNEY/AGENT INFORMATION:
      NAME: Fisher, Carlos A
       REGISTRATION NUMBER: 36,510
      REFERENCE/DOCKET NUMBER: GP94009
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 619-535-2807
      TELEFAX: 619-546-7929
  INFORMATION FOR SEQ ID NO: 2:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 26 base pairs
       TYPE: nucleic acid
       STRANDEDNESS: single
       TOPOLOGY: linear
US-09-094-139-2
                          100.0%; Score 19; DB 3; Length 26;
  Best Local Similarity 100.0%; Pred. No. 0.31;
  Matches 19; Conservative
                                 0; Mismatches
                                                   0; Indels
           1 TGCGGGACTTAACCCAACA 19
              1111111111111111111111
Db .
           20 TGCGGGACTTAACCCAACA 2
RESULT 12
US-08-893-300-1
; Sequence 1, Application US/08893300
; Patent No. 6130038
  GENERAL INFORMATION:
    APPLICANT: Becker, Michael M. APPLICANT: Majlessi, Mehrdad
     TITLE OF INVENTION: METHODS FOR DETECTING AND
     TITLE OF INVENTION: AMPLIFYING NUCLEIC ACID SEQUENCES USING MODIFIED TITLE OF INVENTION: OLIGONUCLEOTIDES HAVING INCREASED TARGET SPECIFIC TM
     NUMBER OF SEQUENCES: 2
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Gen-Probe Incorporated
       STREET: 10210 Genetic Center Drive
      CITY: San Diego
STATE: CA
       COUNTRY: USA
       ZIP: 92121
     COMPUTER READABLE FORM:
      MEDIUM TYPE: Diskette
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COMPUTER: IBM Compatible
       OPERATING SYSTEM: DOS
       SOFTWARE: FastSEQ for Windows Version 2.0
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/893,300
       FILING DATE: 15-JUL-1997
      CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
      APPLICATION NUMBER: 60/021,818
       FILING DATE: 15-JUL-1996
     ATTORNEY/AGENT INFORMATION:
      NAME: Cappellari, Charles B
       REGISTRATION NUMBER: 40,937
       REFERENCE/DOCKET NUMBER: CHE7B-P01A01
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 619-410-8927
       TELEFAX: 619-410-8928
       TELEX:
   INFORMATION FOR SEQ ID NO: 1:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 26 base pairs
       TYPE: nucleic acid
       STRANDEDNESS: single
       TOPOLOGY: linear
US-08-893-300-1
                          100.0%; Score 19; DB 3; Length 26; 100.0%; Pred. No. 0.31;
  Query Match
  Best Local Similarity
                                                     0; Indels
                                  0; Mismatches
                                                                    0; Gaps
                                                                                 0;
  Matches 19; Conservative
Qy
            1 TGCGGGACTTAACCCAACA 19
              7 TGCGGGACTTAACCCAACA 25
Db
RESULT 13
US-08-893-300-2/c
; Sequence 2, Application US/08893300
; Patent No. 6130038
; GENERAL INFORMATION:
     APPLICANT: Becker, Michael M.
     APPLICANT: Majlessi, Mehrdad
     TITLE OF INVENTION: METHODS FOR DETECTING AND
TITLE OF INVENTION: AMPLIFYING NUCLEIC ACID SEQUENCES USING MODIFIED
TITLE OF INVENTION: OLIGONUCLEOTIDES HAVING INCREASED TARGET SPECIFIC TM
     NUMBER OF SEQUENCES: 2
     CORRESPONDENCE ADDRESS:
       ADDRESSEE: Gen-Probe Incorporated
       STREET: 10210 Genetic Center Drive
       CITY: San Diego
STATE: CA
       COUNTRY: USA
       ZIP: 92121
     COMPUTER READABLE FORM:
       MEDIUM TYPE: Diskette
       COMPUTER: IBM Compatible
       OPERATING SYSTEM: DOS
       SOFTWARE: FastSEQ for Windows Version 2.0
     CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/893,300
       FILING DATE: 15-JUL-1997
       CLASSIFICATION: 435
     PRIOR APPLICATION DATA:
       APPLICATION NUMBER: 60/021,818
       FILING DATE: 15-JUL-1996
     ATTORNEY/AGENT INFORMATION:
      NAME: Cappellari, Charles B
       REGISTRATION NUMBER: 40,937
       REFERENCE/DOCKET NUMBER: CHE7B-P01A01
     TELECOMMUNICATION INFORMATION:
       TELEPHONE: 619-410-8927
       TELEFAX: 619-410-8928
       TELEX:
   INFORMATION FOR SEQ ID NO: 2:
     SEQUENCE CHARACTERISTICS:
       LENGTH: 26 base pairs
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TYPE: nucleic acid
       STRANDEDNESS: single
       TOPOLOGY: linear
US-08-893-300-2
  Query Match 100.0%; Score 19; DB 3; Length 26; Best Local Similarity 100.0%; Pred. No. 0.31;
                                  0; Mismatches
  Matches 19; Conservative
                                                     0; Indels
                                                                    0; Gaps
                                                                                0;
            1 TGCGGGACTTAACCCAACA 19
Qу
               1111111111111111111
Dh
           20 TGCGGGACTTAACCCAACA 2
RESULT 14
US-09-736-151-4
; Sequence 4, Application US/09736151
; Patent No. 6902891
; GENERAL INFORMATION:
  APPLICANT: LAAYOUN, ALI
  APPLICANT: MENOU, LIONEL
   APPLICANT: TORA, CHRISTELLE
  APPLICANT: BANERJEE, ALOKE R.
  APPLICANT: BECKER, MICHAEL M.
   APPLICANT: BROWNE, KENNETH A.
   APPLICANT: FRIEDENBERG, MATTHEW C.
   APPLICANT: HAJJAR, FRED F.
   TITLE OF INVENTION: PROCESS FOR LABELING A NUCLEIC ACID
  FILE REFERENCE: 104959
  CURRENT APPLICATION NUMBER: US/09/736,151
   CURRENT FILING DATE: 2000-12-15
   PRIOR APPLICATION NUMBER: US 60/172,136
   PRIOR FILING DATE: 1999-12-17
   NUMBER OF SEQ ID NOS: 11
   SOFTWARE: PatentIn Ver. 2.1
  SEQ ID NO 4
    LENGTH: 26
    TYPE: DNA
    ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Description of Artificial Sequence:primer
US-09-736-151-4
  Query Match
                           100.0%; Score 19; DB 3; Length 26;
  Best Local Similarity 100.0%; Pred. No. 0.31;
                                  0; Mismatches
                                                     0; Indels
  Matches 19; Conservative
                                                                   0; Gaps
                                                                                0:
            1 TGCGGGACTTAACCCAACA 19
Qу
              1111111111111111111
            7 TGCGGGACTTAACCCAACA 25
RESULT 15
US-09-736-151-5
; Sequence 5, Application US/09736151
; Patent No. 6902891
; GENERAL INFORMATION:
  APPLICANT: LAAYOUN, ALI
  APPLICANT: MENOU, LIONEL APPLICANT: TORA, CHRISTELLE
   APPLICANT: BANERJEE, ALOKE R.
  APPLICANT: BECKER, MICHAEL M. APPLICANT: BROWNE, KENNETH A.
   APPLICANT: FRIEDENBERG, MATTHEW C.
   APPLICANT: HAJJAR, FRED F.
   TITLE OF INVENTION: PROCESS FOR LABELING A NUCLEIC ACID
  FILE REFERENCE: 104959
   CURRENT APPLICATION NUMBER: US/09/736,151
   CURRENT FILING DATE: 2000-12-15
   PRIOR APPLICATION NUMBER: US 60/172,136
   PRIOR FILING DATE: 1999-12-17
   NUMBER OF SEQ ID NOS: 11
   SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 5
    LENGTH: 26
    TYPE: DNA
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```
ORGANISM: Artificial Sequence
    FEATURE:
    OTHER INFORMATION: Description of Artificial Sequence:primer; the
    OTHER INFORMATION: phosphate between nucleotides at positions 16 and
    OTHER INFORMATION: 17 is a thiophosphate
US-09-736-151-5
                          100.0%; Score 19; DB 3; Length 26; 100.0%; Pred. No. 0.31;
  Query Match
  Best Local Similarity
                                 0; Mismatches
                                                    0; Indels
  Matches 19; Conservative
                                                                   0; Gaps
                                                                                0;
            1 TGCGGGACTTAACCCAACA 19
              111111111111111
            7 TGCGGGACTTAACCCAACA 25
Db
RESULT 16
US-09-736-151-6
; Sequence 6, Application US/09736151
; Patent No. 6902891
; GENERAL INFORMATION:
  APPLICANT: LAAYOUN, ALI
  APPLICANT: MENOU, LIONEL
  APPLICANT: TORA, CHRISTELLE APPLICANT: BANERJEE, ALOKE R.
  APPLICANT: BECKER, MICHAEL M.
  APPLICANT: BROWNE, KENNETH A.
  APPLICANT:
              FRIEDENBERG, MATTHEW C.
  APPLICANT: HAJJAR, FRED F.
  TITLE OF INVENTION: PROCESS FOR LABELING A NUCLEIC ACID
  FILE REFERENCE: 104959
  CURRENT APPLICATION NUMBER: US/09/736,151
  CURRENT FILING DATE: 2000-12-15
  PRIOR APPLICATION NUMBER: US 60/172,136
  PRIOR FILING DATE: 1999-12-17
  NUMBER OF SEQ ID NOS: 11
  SOFTWARE: PatentIn Ver. 2.1
; SEO ID NO 6
    LENGTH: 26
    TYPE: DNA
    ORGANISM: Artificial Sequence
    OTHER INFORMATION: Description of Artificial Sequence:primer; the
    OTHER INFORMATION: phosphate at the 3' end is a terminal
    OTHER INFORMATION: thiophosphate
US-09-736-151-6
                           100.0%; Score 19; DB 3; Length 26;
  Best Local Similarity 100.0%; Pred. No. 0.31;
  Matches 19; Conservative 0; Mismatches
                                                     0; Indels
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; Sequence 7, Application US/09736151
; Patent No. 6902891
; GENERAL INFORMATION:
; APPLICANT: LAAYOUN, ALI
  APPLICANT: MENOU, LIONEL
  APPLICANT: TORA, CHRISTELLE
  APPLICANT: BANERJEE, ALOKE R. APPLICANT: BECKER, MICHAEL M.
  APPLICANT: BROWNE, KENNETH A.
  APPLICANT: FRIEDENBERG, MATTHEW C. APPLICANT: HAJJAR, FRED F.
  TITLE OF INVENTION: PROCESS FOR LABELING A NUCLEIC ACID
  FILE REFERENCE: 104959
   CURRENT APPLICATION NUMBER: US/09/736,151
   CURRENT FILING DATE: 2000-12-15
   PRIOR APPLICATION NUMBER: US 60/172,136
   PRIOR FILING DATE: 1999-12-17
   NUMBER OF SEQ ID NOS: 11
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US-09-736-151-7
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Qy
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; Sequence 8, Application US/09736151
; Patent No. 6902891
; GENERAL INFORMATION:
; APPLICANT: LAAYOUN, ALI
  APPLICANT: MENOU, LIONEL
   APPLICANT: TORA, CHRISTELLE
  APPLICANT: BANERJEE, ALOKE R.
  APPLICANT: BECKER, MICHAEL M.
   APPLICANT: BROWNE, KENNETH A.
  APPLICANT: FRIEDENBERG, MATTHEW C.
  APPLICANT: HAJJAR, FRED F.
   TITLE OF INVENTION: PROCESS FOR LABELING A NUCLEIC ACID
  FILE REFERENCE: 104959
   CURRENT APPLICATION NUMBER: US/09/736,151
   CURRENT FILING DATE: 2000-12-15
  PRIOR APPLICATION NUMBER: US 60/172,136
  PRIOR FILING DATE: 1999-12-17
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US-09-736-151-8
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Dh
RESULT 19
US-09-736-151-9
; Sequence 9, Application US/09736151
; Patent No. 6902891
; GENERAL INFORMATION:
  APPLICANT: LAAYOUN, ALI
  APPLICANT: MENOU, LIONEL
  APPLICANT: TORA, CHRISTELLE APPLICANT: BANERJEE, ALOKE R.
  APPLICANT: BECKER, MICHAEL M.
  APPLICANT: BROWNE, KENNETH A.
  APPLICANT: FRIEDENBERG, MATTHEW C.
  APPLICANT: HAJJAR, FRED F.
  TITLE OF INVENTION: PROCESS FOR LABELING A NUCLEIC ACID
  FILE REFERENCE: 104959
   CURRENT APPLICATION NUMBER: US/09/736,151
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; Patent No. 6903206
; GENERAL INFORMATION:
; APPLICANT: Becker, Michael M.
 APPLICANT: Majlessi, Mehrdad
  APPLICANT: Brentano, Steven T.
  TITLE OF INVENTION: Kits for Amplifying Nucleic Acid Sequences Using Modified
  TITLE OF INVENTION: Oligonucleotides
  FILE REFERENCE: GP068-03.CN1
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  PRIOR FILING DATE: 1996-07-16
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Job time : 70.439 secs
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SCORE 1.3 BuildDate: 12/06/2005

# **SCORE Search Results Details for Application** 10743384 and Search Result us-10-743-384-2.szim60.rge.

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This page gives you Search Results detail for the Application 10743384 and Search Result us-10-743-384-2.szlm60.rge.

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GenCore version 5.1.9
                  Copyright (c) 1993 - 2006 Biocceleration Ltd.
OM nucleic - nucleic search, using sw model
Run on:
                July 26, 2006, 15:49:16; Search time 1245.2 Seconds
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Searched:
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Post-processing: Minimum Match 0%
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gb\_un:\* 10: gb\_vi:\* 11: gb ov:\* 12: gb htg:\* 13: gb\_in:\* 14: gb\_om:\*

15: gb\_ba:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARTES

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  AUTHORS
            Chaubron, F., Martin-Minvielle, A.C. and Groulon, S.
            One step real-time rt pcr kits for the universal detection of
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           Rothman, R.E., Yang, S., Lin, S. and Kelen, G.D.
  TITLE
            Quantitative assay for the simultaneous detection and speciation of
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            Patent: US 6699670-A 2 02-MAR-2004;
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           Rothman, R.E., Yang, S., Lin, S. and Kelen, G.D.
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            Iversen, P.L.
            Antisense antibacterial method and composition
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Iversen, P. E.
REFERENCE
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            1 (bases 1 to 23)
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            Gerbling, K.P., Lauter, F.R. and Grohmann, L.
  TITLE
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  JOURNAL
            Patent: JP 2002514439-A 52 21-MAY-2002;
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                 12-MAY-1998 DE 198 22 108.8
                 KLAUS PETER GERBLING, FRANK ROMAN LAUTER, LUTZ GROHMANN PC
            PΤ
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            Grohmann, L., Gerbling, K.P. and Lauter, F.R.
  TITLE
            Method for detecting microorganisms in products
  JOURNAL
            Patent: WO 9958713-A 52 18-NOV-1999;
            GROHMANN LUTZ (DE); BIOINSIDE GMBH (DE); GERBLING KLAUS PETER (DE);
            LAUTER FRANK ROMAN (DE)
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  AUTHORS
            Becker, M.M., Majlessi, M. and Brentano, S.T.
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            Method for amplifying target nucleic acids using modified primers
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           Laayoun, A., Menou, L., Tora, C., Banerjee, A.R., Becker, M.M.,
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           Browne, K.A., Friedenberg, M.C. and Hajjar, F.F.
           Process for labeling a nucleic acid
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# **SCORE Search Results Details for Application** 10743384 and Search Result us-10-743-384-1.szim60.rng.

Score Home Page

Retrieve Application

SCORE System Overview

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Comments / Suggestions

This page gives you Search Results detail for the Application 10743384 and Search Result us-10-743-384-1.szlm60.rng.

<u>start</u>

Go Back to previous page

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OM nucleic - nucleic search, using sw model

List

July 26, 2006, 15:45:05; Search time 246.293 Seconds

(without alignments)

622.793 Million cell updates/sec

Title: US-10-743-384-1

Perfect score: 22

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Scoring table: IDENTITY NUC

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5244920 seqs, 3486124231 residues Searched:

Total number of hits satisfying chosen parameters: 5397982

Minimum DB seg length: 0 Maximum DB seq length: 60

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 60 summaries

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9: geneseqn2003bs:\* 10: geneseqn2003cs:\* 11: geneseqn2003ds:\* 12: geneseqn2004as:\*

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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С
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PT
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XX
PS
    Disclosure; Fig 5; 39pp; English.
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CC
    least two fluorogenic probes. The methods are useful in detecting and
CC
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CC
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CC
    with simultaneous speciation. It eliminates false positive results in
CC
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XX
KW
     Eubacteria; species detection; speciation; 16s RNA; PCR; primer; ss.
XX
os
    Synthetic.
XX
    WO200270728-A2.
PN
XX
PD
     12-SEP-2002.
XX
PF
    01-MAR-2002; 2002WO-US006050.
XX
    01-MAR-2001; 2001US-0272642P.
PR
XX
PA
     (UYJO ) UNIV JOHNS HOPKINS.
XX
PΙ
     Rothman RE, Yang S, Lin S, Kelen GD;
XX
DR
    WPI; 2002-698755/75.
XX
PT
    Detecting and determining species source of eubacterial DNA in a sample,
PT
     comprises amplifying template DNA in the sample using a real-time
    polymerase chain reaction with the use of primers and at least two
```

```
PT
     fluorogenic probes.
XX
     Claim 12; Page 11; 39pp; English.
PS
XX
CC
     The invention describes a method of detecting and determining species
CC
     source of eubacterial DNA in a sample. The method comprises amplifying
CC
     template DNA in the sample using a real-time polymerase chain reaction (R
     -T PCR), where the PCR or PCR reaction mixture comprises primers and at
CC
CC
     least two fluorogenic probes. The methods are useful in detecting and
     determining species source of eubacterial DNA in a sample. The present
CC
CC
     method allows for highly sensitive detection of any eubacterial species
CC
     with simultaneous speciation. It eliminates false positive results in
     detecting bacterial infections. This sequence represents a primer
CC
CC
     designed using 16s RNA sequences and used in the eubacterial detection
CC
     method of the invention
XX
     Sequence 22 BP; 5 A; 2 C; 7 G; 8 T; 0 U; 0 Other;
                          100.0%; Score 22; DB 6; Length 22;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 0.93;
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                                                  0; Indels
  Matches 22; Conservative
                                                                 0; Gaps
                                                                             0;
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              Db
            1 TGGAGCATGTGGTTTAATTCGA 22
RESULT 3
ADO15325
TD
     ADO15325 standard; DNA; 22 BP.
XX
     ADO15325;
AC
XX
DT
     12-AUG-2004 (first entry)
XX
DE
     PCR primer used for one-step real-time RT-PCR detection SeqID 1.
XX
     one step real-time RT-PCR; pharmaceutical; cosmetic; bacteria;
KW
KW
     fungus-yeast; PCR; primer; ss.
XX
OS
     Synthetic.
XX
PN
     W02004044247-A2.
XX
PD
     27-MAY-2004.
XX
PF
     03-NOV-2003; 2003WO-IB005312.
XX
PR
     12-NOV-2002; 2002US-0425327P.
XX
     (GENO-) GENOLIFE.
PA
XX
PΙ
     Chaubron F, Martin-Minvielle AC, Groulon S;
XX
     WPI; 2004-411742/38.
DR
XX
PT
     Determining presence of bacteria or fungus-yeast RNA in sample involves
PT
     carrying out reverse transcriptase-PCR reaction of fungus-yeast RNA and
PT
     treating amplified DNA with probes which hybridize to amplified DNA.
XX
PS
     Claim 1; SEQ ID NO 1; 31pp; English.
XX
     This invention relates to a novel method for one step real-time \operatorname{RT-PCR}
CC
CC
     kits useful for the detection of microorganisms occurring within
CC
     industrial products such as pharmaceuticals, cosmetic and non-clinical
CC
     samples. Specifically, it refers to determining the presence of bacteria
CC
     or fungus-yeast RNA in a sample suspected of containing such
CC
     contaminants. The present invention describes oligonucleotide primers and
CC
     probes that are natural nucleic acid or peptide nucleic acid (PNA)
CC
     molecules that can hybridise to the target nucleic acid (DNA and RNA).
CC
     Accordingly, the method enables rapid and simultaneous detection and
CC
     quantification of RNA from bacteria and fungus-yeast in either sterile or
CC
     non-sterile products in less than 24 hours. Furthermore, the one step
CC
     process reduces the risk of environmental contamination that could occur
CC
     when the reaction tubes are opened during the PCR procedure. This
     oligonucleotide sequence is a PCR primer used in one-step real time RT-
```

```
CC
     PCR to amplify bacteria and fungus-yeast RNA, given in an exemplification
CC
     of the invention.
XX
     Sequence 22 BP; 5 A; 2 C; 7 G; 8 T; 0 U; 0 Other;
                          100.0%; Score 22; DB 12; Length 22;
  Best Local Similarity 100.0%; Pred. No. 0.93;
                                 0; Mismatches
                                                   0; Indels
  Matches 22; Conservative
                                                                 0; Gaps
                                                                              0:
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Qy
              1 TGGAGCATGTGGTTTAATTCGA 22
RESULT 4
AAA14443
TD
     AAA14443 standard; DNA; 52 BP.
XX
     AAA14443;
AC
XX
DT
     21-AUG-2000 (first entry)
XX
DE
     Escherichia coli 16S rRNA gene fragment template.
XX
KW
     Reverse displacement assay; nucleic acid detection; hybridisation;
KW
     16S ribosomal RNA gene; ss.
XX
OS
     Escherichia coli.
XX
PN
     W0200020643-A1.
XX
PD
     13-APR-2000.
XX
PF
     04-OCT-1999;
                    99WO-US023035.
XX
PR
     05-OCT-1998;
                    98US-0103075P.
XX
     (MOSA-) MOSAIC TECHNOLOGIES.
PA
XX
ΡĪ
     Abrams ES, Hammond PW;
XX
DR
     WPI; 2000-303807/26.
XX
PT
     Method for detecting the presence of a target nucleic acid sequence in a
PT
XX
PS
     Example; Page 17; 30pp; English.
XX
CC
     The invention relates to a novel method for detecting the presence of a
CC
     target nucleic acid sequence in a test sample. The method comprises
CC
     forming a probe-tether complex and introducing a test sample into a
CC
     solution containing the complex under conditions suitable for
CC
     hybridisation between the probe and the target. A probe-target complex is
     formed, and the presence of the target nucleic acid sequence is detected
CC
     in the test sample. The probe is complementary to the target sequence,
CC
     while the tether is complementary to at least one subsequence of the
CC
     probe. The probe-complex is contains at least one double stranded segment
CC
     and one single stranded segment. Introduction of the target nucleic acid
CC
     sequence displaces the tether sequence from the probe. If the probe
CC
     and/or the tether contain a detectable label (e.g., a fluorophore), the
CC
     reverse displacement can be detected by an alteration in the signal
CC
     produced. Saturation of the tether nucleic acid with labelled probe is
     not required in this method, unlike prior art methods. Because the tether
CC
CC
     nucleic acid is not complementary to the target nucleic acid, uncomplexed
CC
     tether nucleic acid will not hybridise with the target, and therefore
CC
     does not compete with target nucleic acid for hybridisation with probe
CC
     nucleic acids. In the exemplification of the invention, an
CC
     oligonucleotide (AAA14443) corresponding to a portion of the Escherichia
CC
     coli 16S ribosomal RNA gene was detected according to the method of the
CC
     invention using probe AAA14445 and tether oligonucleotide AAA14444. The
CC
     present sequence represents the Escherichia coli 16S ribosomal RNA gene
CC
     fragment used as the target nucleic acid
XX
     Sequence 52 BP; 15 A; 12 C; 14 G; 11 T; 0 U; 0 Other;
  Query Match
                          100.0%; Score 22; DB 3; Length 52;
```

```
Best Local Similarity 100.0%; Pred. No. 1;
                                0; Mismatches
  Matches 22: Conservative
                                                   0: Indels
                                                                 0: Gaps
                                                                             0:
            1 TGGAGCATGTGGTTTAATTCGA 22
Qу
              Db
           10 TGGAGCATGTGGTTTAATTCGA 31
RESULT 5
AAC63206
     AAC63206 standard; DNA; 52 BP.
TD
     AAC63206;
AC
XX
DT
     06-FEB-2001 (first entry)
XX
DE
     16S rRNA fragment.
XX
     Microorganism detection; 16S rRNA; ss.
KW
XX
os
     Escherichia coli.
XX
PN
     W0200060120-A2.
XX
     12-OCT-2000.
PD
XX
PF
     31-MAR-2000; 2000WO-US008773.
XX
PR
     02-APR-1999;
                   99US-00286091.
XX
PA
     (MOSA-) MOSAIC TECHNOLOGIES.
XX
PΙ
     Boles TC:
XX
     WPI; 2001-015657/02.
DR
XX
PT
     Detecting presence or absence of microbial target molecules
PΤ
     electrophoretically, by using capture probes immobilized to
PT
     electrophoretic matrix, that specifically bind to target molecule in test
PT
XX
PS
     Claim 27; Page 35; 61pp; English.
XX
CC
     The present invention relates to a method for detecting the presence or
CC
     absence of a microorganism in a biological sample by electrophoresis. The
     method of the present invention comprises detecting the presence or
CC
CC
     absence of microbiological target molecules in a test sample using
CC
     capture probes, immobilised to an electrophoretic medium, which
     specifically bind to or are bound by the specific microbiological target
CC
CC
     molecules. The method of the present invention is useful for identifying
     bacteria Serratia marcescens, Staphylococcus epidermidis, Staphylococcus
CC
     aureus, Escherichia coli, Bacillus cereus, Enterobacter cloacae,
CC
     Streptococcus pyogenes, Staphylococcus warneri, Streptococcus (alpha-
     hemolytic), Streptococcus mitis, Salmonella, Serratia liquifaciens,
CC
     Klebsiella, Propionibacterium acnes, Yersinia enterocolitica, Pseudomonas
CC
     fluorescens, Pseudomonas putida in a biological sample. The present
CC
     sequence is a DNA corresponding to the 16S rRNA sequence of E. coli. This
CC
     sequence was used as a microbiological target molecule in the method of
CC
     the present invention
XX
     Sequence 52 BP; 15 A; 12 C; 14 G; 11 T; 0 U; 0 Other;
  Ouerv Match
                         100.0%; Score 22; DB 5; Length 52;
  Best Local Similarity 100.0%; Pred. No. 1;
          22; Conservative
                                0; Mismatches
  Matches
                                                  0; Indels
                                                                0; Gaps
Qу
           1 TGGAGCATGTGGTTTAATTCGA 22
              Db
           10 TGGAGCATGTGGTTTAATTCGA 31
RESULT 6
AAC63204/c
ΙD
    AAC63204 standard; DNA; 52 BP.
XX
AC
    AAC63204;
```

```
XX
DT
    06-FEB-2001 (first entry)
XX
DΕ
    Capture probe #2 used for detecting microorganisms.
XX
KW
    Microorganism detection; capture probe; ss.
XX
os
    Escherichia coli.
XX
PN
     W0200060120-A2.
XX
PD
    12-OCT-2000.
XX
    31-MAR-2000; 2000WO-US008773.
PF
XX
    02-APR-1999;
                   99US-00286091.
PR
XX
PA
     (MOSA-) MOSAIC TECHNOLOGIES.
XX
PΙ
    Boles TC;
XX
    WPI; 2001-015657/02.
DR
XX
PΤ
    Detecting presence or absence of microbial target molecules
PT
    electrophoretically, by using capture probes immobilized to
PT
     electrophoretic matrix, that specifically bind to target molecule in test
PT
    sample.
XX
PS
    Claim 25; Page 34; 61pp; English.
ХX
CC
    The present invention relates to a method for detecting the presence or
CC
    absence of a microorganism in a biological sample by electrophoresis. The
CC
    method of the present invention comprises detecting the presence or
CC
    absence of microbiological target molecules in a test sample using
CC
    capture probes, immobilised to an electrophoretic medium, which
CC
    specifically bind to or are bound by the specific microbiological target
    molecules. The method of the present invention is useful for identifying
CC
    bacteria Serratia marcescens, Staphylococcus epidermidis, Staphylococcus
CC
    aureus, Escherichia coli, Bacillus cereus, Enterobacter cloacae,
CC
     Streptococcus pyogenes, Staphylococcus warneri, Streptococcus (alpha-
CC
    hemolytic), Streptococcus mitis, Salmonella, Serratia liquifaciens,
CC
    Klebsiella, Propionibacterium acnes, Yersinia enterocolitica, Pseudomonas
CC
     fluorescens, Pseudomonas putida in a biological sample. The present
CC
    sequence is a capture probe used in the method of the present invention
    Sequence 52 BP; 11 A; 14 C; 12 G; 15 T; 0 U; 0 Other;
                          100.0%; Score 22; DB 5; Length 52;
 Best Local Similarity
                         100.0%; Pred. No. 1;
 Matches 22; Conservative
                                 0; Mismatches
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                                                                 0; Gaps
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Qу
              43 TGGAGCATGTGGTTTAATTCGA 22
RESULT 7
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    AAX60967 standard; DNA; 22 BP.
ID
XX
    AAX60967:
AC.
XX
DT
    03-SEP-1999 (first entry)
XX
DE
    Donor probe hybridising to a conserved eubacterial 16S rRNA.
XX
KW
    Nucleic acid detection; target; protein detection; pathogenic microbe;
KW
    eubacteria; human immune deficiency virus; blood contamination;
KW
    hybridisation; probe; ss.
XX
os
    Synthetic.
XX
PN
    WO9926724-A2.
XX
PD
    03-JUN-1999.
XX
```

```
PF
     25-NOV-1998;
                    98WO-US024918.
XX
     25-NOV-1997;
                    97US-0066508P.
PR
XX
     (MOSA-) MOSAIC TECHNOLOGIES.
PA
XX
PΙ
    Muir AR, Boles TC, Adams CP;
XX
DR
    WPI; 1999-385182/32.
XX
     Device for detecting target molecule or microbe.
PT
XX
PS
    Example 11; Page 78; 124pp; English.
XX
CC
     The invention describes a device for detecting presence of a target
    molecule in a biological sample. The device comprises a receptacle
CC
CC
     housing at least one chamber, having at least one compartment containing
CC
     one or more reagents for detecting the target. Optionally the device is
CC
     combined with, and optionally removable from, a collection device. The
CC
     devices are used to detect specific nucleic acids (RNA or DNA), proteins,
    polypeptides, or a very wide range of pathogenic microbes (bacteria,  
CC
CC
     viruses, fungi or parasites), particularly eubacteria or human immune
CC
     deficiency virus. Especially the method is used to detect contamination
CC
    of donated blood. The devices are efficient, easy to use and provide
CC
     results rapidly
XX
SQ
     Sequence 22 BP; 8 A; 8 C; 2 G; 4 T; 0 U; 0 Other;
                          95.5%; Score 21; DB 2; Length 22;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.8;
  Matches 21; Conservative
                                0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
Qу
           1 TGGAGCATGTGGTTTAATTCG 21
              Db
           21 TGGAGCATGTGGTTTAATTCG 1
RESULT 8
ADO15329
ID
    ADO15329 standard; DNA; 22 BP.
XX
AC
    ADO15329;
XX
DT
    12-AUG-2004 (first entry)
XX
DΕ
     PCR primer used for one-step real-time RT-PCR detection SeqID 5.
XX
KW
     one step real-time RT-PCR; pharmaceutical; cosmetic; bacteria;
KW
     fungus-yeast; PCR; primer; ss.
XX
os
     Synthetic.
XX
PN
     WO2004044247-A2.
XX
PD
     27-MAY-2004.
XX
PF
     03-NOV-2003; 2003WO-IB005312.
XX
PR
     12-NOV-2002; 2002US-0425327P.
XX
PA
     (GENO-) GENOLIFE.
XX
ΡĪ
     Chaubron F, Martin-Minvielle AC, Groulon S;
XX
     WPI; 2004-411742/38.
DR
XX
PT
     Determining presence of bacteria or fungus-yeast RNA in sample involves
PT
     carrying out reverse transcriptase-PCR reaction of fungus-yeast RNA and
PT
     treating amplified DNA with probes which hybridize to amplified DNA.
XX
PS
     Claim 1; SEQ ID NO 5; 31pp; English.
XX
CC
     This invention relates to a novel method for one step real-time RT-PCR
CC
     kits useful for the detection of microorganisms occurring within
CC
     industrial products such as pharmaceuticals, cosmetic and non-clinical
     samples. Specifically, it refers to determining the presence of bacteria
```

```
RESULT 3
US-09-411-777A-1
; Sequence 1, Application US/09411777A
; Patent No. 6238927
; GENERAL INFORMATION:
; APPLICANT: Abrams, Ezra S.
; APPLICANT: Hammond, Philip W.
; TITLE OF INVENTION: Reverse Displacement Assay for Detection
; TITLE OF INVENTION: of Nucleic Acid Sequences
; FILE REFERENCE: MST98-03pA
  CURRENT APPLICATION NUMBER: US/09/411,777A
; CURRENT FILING DATE: 1999-10-04
; PRIOR APPLICATION NUMBER: 60/103,075
  PRIOR FILING DATE: 1998-10-05
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
   LENGTH: 52
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US-09-411-777A-1
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Db
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## **SCORE Search Results Details for Application** 10743384 and Search Result us-10-743-384-1.szim60.rge..

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**SCORE System** Overview

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Comments / Suggestions

This page gives you Search Results detail for the Application 10743384 and Search Result us-10-743-384-1.szlm60.rge.

start

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OM nucleic - nucleic search, using sw model

List

July 26, 2006, 15:49:16; Search time 1441.8 Seconds

(without alignments)

975.751 Million cell updates/sec

Title:

US-10-743-384-1

Perfect score: 22

Sequence: 1 tggagcatgtggtttaattcga 22

Scoring table: IDENTITY NUC

Gapop 10.0 , Gapext 1.0

Searched:

6366136 seqs, 31973710525 residues

Total number of hits satisfying chosen parameters:

2455354

Minimum DB seq length: 0 Maximum DB seq length: 60

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 60 summaries

Database :

GenEmbl:\* 1: gb\_env:\* gb\_pat:\* 3: gb\_ph:\* 4: gb\_pl:\* gb pr:\* 6: gb ro:\* 7: gb\_sts:\* 8: gb\_sy:\* gb\_un:\* 10: gb\_vi:\* 11: gb ov:\* 12: gb htg:\* 13: gb\_in:\* 14: gb om:\* 15: gb\_ba:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1 2	22 22	100.0			CQ818164 AR478753	CQ818164 Sequence AR478753 Sequence

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	3	22	100.0	22	2	AR478757	AR478757 Sequence
	4	22	100.0	52	2	AR154667	AR154667 Sequence
С	5	21	95.5	22	2	AR159998	AR159998 Sequence
	6	20.4	92.7	22	2	AR478761	AR478761 Sequence
	7	20.2	91.8	22	2	CQ818168	CQ818168 Sequence
С	8	20	90.9	24	2	AX622955	AX622955 Sequence
	9	20	90.9	25	2	AR089512	AR089512 Sequence
С	10	20	90.9	30	2	CS246054	CS246054 Sequence
_	11	18.8	85.5	20	2	E16621	E16621 PCR primer
С	12	17.2	78.2	46	2	AR104016	AR104016 Sequence
c	13	17.2	78.2	46	2	AR104091	AR104091 Sequence
C	14	17.2	78.2	46	2	AR104092	AR104092 Sequence
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	32			50	2		AR685919 Sequence
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C	46	13.6	61.8	42	2	AR076833	AR076833 Sequence
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			61.8			AR218141	AR634642 Sequence
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С	58	13.4	60.9	46	2	129224	I29224 Sequence 96
С	59	13.4	60.9	46	2	AR209148	AR209148 Sequence
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### ALIGNMENTS

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RESULT 1
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                                     22 bp
                                                      linear PAT 07-JUN-2004
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LOCUS
DEFINITION Sequence 1 from Patent WO2004044247.
ACCESSION
           CQ818164
VERSION
           CQ818164.1 GI:48426956
KEYWORDS
SOURCE
           synthetic construct
 ORGANISM synthetic construct
           other sequences; artificial sequences.
REFERENCE
 AUTHORS
           Chaubron, F., Martin-Minvielle, A.C. and Groulon, S.
 TITLE
           One step real-time rt pcr kits for the universal detection of
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organisms in industrial products
  JOURNAL
            Patent: WO 2004044247-A 1 27-MAY-2004;
            Genolife (FR)
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                     /note="#Description of artificial sequence:
                     oligonucleotide primer#"
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                                 0; Mismatches
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                                                                              0;
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              1111111111111111111111
            1 TGGAGCATGTGGTTTAATTCGA 22
Db
RESULT 2
AR478753
LOCUS
            AR478753
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            Rothman, R.E., Yang, S., Lin, S. and Kelen, G.D.
  AUTHORS
  TITLE
            Quantitative assay for the simultaneous detection and speciation of
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            Patent: US 6699670-A 1 02-MAR-2004;
  JOURNAL
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            Quantitative assay for the simultaneous detection and speciation of
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            Abrams, E.S. and Hammond, P.W.
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            Devices and methods for detecting target molecules in biological
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            Chaubron, F., Martin-Minvielle, A.C. and Groulon, S.
  TITLE
            One step real-time rt pcr kits for the universal detection of
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            Brunham, R.C., Karunakaran, P. and Blanchard, J.
  TITLE
            Diagnosis of vascular disease susceptibility using bacteriophage
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  JOURNAL
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  AUTHORS
            Bergeron, M.G., Picard, F.J., Ouellette, M. and Roy, P.H.
 TITLE
            Species-specific and universal DNA probes and amplification primers
            to rapidly detect and identify common bacterial pathogens and
            associated antibiotic resistance genes from clinical specimens for
            routine diagnosis in microbiology laboratories
  JOURNAL
            Patent: US 5994066-A 271 30-NOV-1999;
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 AUTHORS
            Perseu, S.
 TITLE
            System for searching for and identifying pathogenic agents
 JOURNAL
            Patent: EP 1609874-A 101 28-DEC-2005;
            Bioanalisi Centro Sud S.n.c. di Perseu Sinibaldo eC. (IT)
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# **SCORE Search Results Details for Application** 10743384 and Search Result us-10-743-384-2.szlm60.rna.

Score Home Page

Retrieve Application

SCORE System Overview

SCORE FAQ

Comments / Suggestions

This page gives you Search Results detail for the Application 10743384 and Search Result us-10-743-384-2.szlm60.rng.

start

Go Back to previous page

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GenCore version 5.1.9
Copyright (c) 1993 - 2006 Biocceleration Ltd.
```

OM nucleic - nucleic search, using sw model

List

Run on:

July 26, 2006, 15:45:05; Search time 212.707 Seconds

(without alignments)

622.793 Million cell updates/sec

Title:

US-10-743-384-2

Perfect score: Sequence:

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Scoring table: IDENTITY NUC

Gapop 10.0 , Gapext 1.0

Searched:

5244920 seqs, 3486124231 residues

Total number of hits satisfying chosen parameters:

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Minimum DB seq length: 0 Maximum DB seq length: 60

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 60 summaries

Database :

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13: geneseqn2004bs:\* 14: geneseqn2005s:\* 15: geneseqn2006s:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

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PS
     Claim 12; Page 11; 39pp; English.
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CC
CC
     least two fluorogenic probes. The methods are useful in detecting and
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CC
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CC
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XX
DT
     12-AUG-2004 (first entry)
XX
DE
     PCR primer used for one-step real-time RT-PCR detection SeqID 2.
XX
     one step real-time RT-PCR; pharmaceutical; cosmetic; bacteria;
KW
KW
     fungus-yeast; PCR; primer; ss.
XX
OS
     Synthetic.
XX
     WO2004044247-A2.
PΝ
XX
     27-MAY-2004.
XX
PF
     03-NOV-2003; 2003WO-IB005312.
XX
     12-NOV-2002; 2002US-0425327P.
PR
XX
PΑ
     (GENO-) GENOLIFE.
XX
PΙ
     Chaubron F, Martin-Minvielle AC, Groulon S;
XX
     WPI; 2004-411742/38.
DR
XX
PT
     Determining presence of bacteria or fungus-yeast RNA in sample involves
PT
     carrying out reverse transcriptase-PCR reaction of fungus-yeast RNA and
     treating amplified DNA with probes which hybridize to amplified DNA.
PT
XX
PS
     Claim 1; SEQ ID NO 2; 31pp; English.
XX
     This invention relates to a novel method for one step real-time \ensuremath{\mathsf{RT-PCR}}
CC
CC
     kits useful for the detection of microorganisms occurring within
CC
     industrial products such as pharmaceuticals, cosmetic and non-clinical
CC
     samples. Specifically, it refers to determining the presence of bacteria
CC
     or fungus-yeast RNA in a sample suspected of containing such
CC
     contaminants. The present invention describes oligonucleotide primers and
CC
     probes that are natural nucleic acid or peptide nucleic acid (PNA)
     molecules that can hybridise to the target nucleic acid (DNA and RNA).
CC
CC
     Accordingly, the method enables rapid and simultaneous detection and
CC
     quantification of RNA from bacteria and fungus-yeast in either sterile or
     non-sterile products in less than 24 hours. Furthermore, the one step
CC
     process reduces the risk of environmental contamination that could occur
CC
CC
     when the reaction tubes are opened during the PCR procedure. This
     oligonucleotide sequence is a PCR primer used in one-step real time RT-
```

```
CC
     PCR to amplify bacteria and fungus-yeast RNA, given in an exemplification
CC
    of the invention.
XX.
     Sequence 19 BP; 6 A; 6 C; 4 G; 3 T; 0 U; 0 Other;
                          100.0%; Score 19; DB 12; Length 19;
  Best Local Similarity 100.0%; Pred. No. 2.4;
                                 0; Mismatches
                                                    0; Indels
  Matches 19; Conservative
                                                                  0; Gaps
                                                                               0;
            1 TGCGGGACTTAACCCAACA 19
Qу
              1111111111111111111111
Db
            1 TGCGGGACTTAACCCAACA 19
RESULT 4
ACC48547
     ACC48547 standard; DNA; 20 BP.
TD
XX
AC
     ACC48547:
XX
DT
     11-AUG-2003 (first entry)
XX
DE
     Affinity-labeled probe for nucleic acid detection.
XX
     Nucleic acid detection; affinity-shifted probe; ss.
KW
XX
os
     Escherichia coli.
XX
FH
     Key
                     Location/Qualifiers
     modified_base
                     10. .11
FT
FT
                     /*tag= a
FT
                     /mod_base= OTHER
                     /note= "OTHER= labelled with acridinium ester"
FT
XX
ΡN
     WO2003020952-A2.
XX
PD
     13-MAR-2003.
XX
     30-AUG-2002; 2002WO-US027710.
PF
XX
     31-AUG-2001; 2001US-0316770P.
PR
PR
     26-MAR-2002; 2002US-0368072P.
XX
     (GENP-) GEN-PROBE INC.
PA
XX
PΙ
     Becker MM, Nelson NC;
XX
DR
     WPI; 2003-313092/30.
XX
     Novel probe reagent for quantifying amount of analyte polynucleotide
PT
     present in test sample in lower or higher amounts, has two or more probes
PΤ
     that hybridize with same analyte polynucleotide with different
PT
     affinities.
XX
     Example 1; Page 44; 84pp; English.
PS
XX
     The present invention relates to the use of multiple probes for
CC
     quantifying analytes over an extended dynamic range. To demonstrate the
CC
CC
     basis of the quantitative approach underlying the invention, an
CC
     experiment was conducted using 3 types of hybridisation reaction, each
     reaction being characterised by its own dynamic range. The present
CC
CC
     sequence is that of a second probe used in the procedure. It is a 20-mer
     labelled with acridinium ester (AE) to a specific activity of 9.37\ x\ 10
CC
     power 7 rlu/pmole. A first 26-mer probe (see ACC48547) was labelled with
CC
CC
     AE to a specific activity of 1.31 x 10 power 8 rlu/pmole. The target was
     an RNA sequence (see ACC48545) from Escherichia coli. The first set of
CC
CC
     hybridisation reactions included 0.5 fmol of the 26-mer probe, the second
     set used 0.5 fmol of the 20-mer, and the third used 0.5 fmol of each
CC
     probe. The 26-mer and 20-mer probes were separately useful for
CC
CC
     quantifying the analyte over 10-1,000 and 1,000-100,000 fmol ranges,
     respectively, but together provided a quantitative range from 10 to
CC
     100,000 fmol. The results showed how 2 different probes harbouring
CC
CC
     indistinguishable labels and binding the same analyte with a different
     measurable interaction can be used to quantify the analyte over an
CC
CC
     extended dynamic range
XX
```

```
SQ Sequence 20 BP; 6 A; 6 C; 4 G; 4 T; 0 U; 0 Other;
                         100.0%; Score 19; DB 8; Length 20;
  Best Local Similarity 100.0%; Pred. No. 2.4;
                                                  0; Indels
                                                                 0; Gaps
 Matches 19; Conservative
                                0; Mismatches
Oν
           1 TGCGGGACTTAACCCAACA 19
              Db
            1 TGCGGGACTTAACCCAACA 19
RESULT 5
AAT45274
    AAT45274 standard; DNA; 21 BP.
TD
XX
    AAT45274;
AC
XX
DT
    06-AUG-1997 (first entry)
XX
    Bacterial 16S rRNA V6 variable region amplification primer.
DE
XX
    Ribosomal RNA; 16S rRNA; V6 variable region; diagnostic probe;
KW
KW
    species-specific; amplification primer; polymerase chain reaction; PCR;
KW
    Clavibacter michiganensis; ss.
XX
os
    Synthetic.
XX
PN
    FR2733754-A1.
XX
    08-NOV-1996.
PD
XX
    05-MAY-1995;
                    95FR-00005416.
PF
XX
PR
    05-MAY-1995;
                    95FR-00005416.
XX
PA
     (UYAN-) UNIV ANGERS.
XX
PΤ
    Horvais A;
XX
DR
    WPI; 1997-001737/01.
XX
     Clavibacter michiganensis DNA fragments - useful as diagnostic probes and
PΤ
    primers.
XX
PS
     Disclosure; Page 20; 29pp; French.
XX
     Genomic DNA coding for the V6 variable region of 16S ribosomal RNA was
CC
CC
     amplified from 7 different bacterial strains using PCR primers having the
     sequences given in AAT45273 and AAT45274. The bacteria were divided into
CC
CC
     three groups: the first group contained 2 different sub-species of
CC
    Clavibacter michiganensis; the second group contained 2 non-michiganensis
     Clavibacter species and the third group consisted of 3 varieties of
CC
CC
     Curtobacterium flaccumfaciens. The amplification products were sequenced
CC
     and a consensus sequence was derived for each of the three groups. A
     comparison of the three consensus sequences allowed a sequence specific
CC
CC
     to C.michiganensis V6 variable region to be identified, i.e. the sequence
     in AAT45270. Single-stranded fragments which have at least 70% homology
CC
     with the identified sequence or their complementary sequences are
CC
CC
     claimed. The new DNA fragments are used as probes and primers for
CC
     detecting C.michiganensis infections, e.g. in tomatoes
XX
     Sequence 21 BP; 6 A; 6 C; 4 G; 5 T; 0 U; 0 Other;
  Query Match
                          100.0%; Score 19; DB 2; Length 21;
                          100.0%; Pred. No. 2.4;
  Best Local Similarity
                                 0; Mismatches
                                                   0; Indels
                                                                 0: Gaps
          19; Conservative
  Matches
            1 TGCGGGACTTAACCCAACA 19
Qy
              1111111111111111111
Db
            2 TGCGGGACTTAACCCAACA 20
RESULT 6
AAS11044
     AAS11044 standard; DNA; 21 BP.
TD
```

```
AAS11044;
AC
XX
DТ
     06-AUG-2003
                  (revised)
DT
     24-OCT-2001 (first entry)
XX
     Bacterial 16s RNA antisense oligomer #10.
DE
XX
     Antisense; bacterial 16s ribosomal RNA; rRNA; bacterial infection; human;
KW
     food grain supplement; livestock; poultry; therapeutic; ss.
KW
XX
os
     Vibrio cholerae.
os
     Escherichia coli.
os
     Salmonella typhimurium.
     Shigella dysenteriae.
os
os
     Haemophilus influenzae.
OS
     Pseudomonas aeruginosa.
     Neisseria gonorrhoeae.
     Staphylococcus aureus.
os
OS
     Mycobacterium tuberculosis.
     Helicobacter pylori.
OS
     Streptococcus pneumoniae.
os
     Treponema pallidum.
os
     Chlamydia trachomatis.
OS
     Bartonella henselae.
XX
ΡN
     WO200142457-A2.
XX
PD
     14-JUN-2001.
XX
PF
     29-NOV-2000; 2000WO-US042391.
XX
                    99US-0168150P.
     29-NOV-1999;
PR
XX
PΑ
     (AVIB-) AVI BIOPHARMA INC.
XX
PΙ
     Iversen PL;
XX
     WPI: 2001-457295/49.
DR
XX
     Antibacterial compound, useful for treating bacterial infections and as
PT
PT
     livestock and poultry food supplement, comprises antisense
     oligonucleotides complementary to bacterial 16S and 23S rRNA.
XX
PS
     Claim 11; Page 44; 62pp; English.
XX
CC
     AAS11035-AAS11157 represent the coding sequences of bacterial 16S
CC
     ribosomal RNA (rRNA) antisense oligomers. These sequences are
CC
     antibacterial compounds comprising substantially uncharged antisense
     oligomers containing 8-40 nucleotide subunits, including a targeting
CC
CC
     nucleic acid sequence at least 10 nucleotides in length which is
     complementary to a bacterial 16S or 23S rRNA nucleic acid sequence. The
CC
     antisense oligomers are used for treating a bacterial infection in a
CC
CC
     human or a mammalian animal produced by Escherichia coli, Salmonella
     typhimurium, Pseudomonas aeruginosa, Vibrio cholera, Neisseria
CC
     gonorrhoea, Helicobacter pylori, Bartonella henselae, Haemophilus
CC
CC
     influenza, Shigella dysenterae, Staphylococcus aureus, Mycobacterium
     tuberculosis, Streptococcus pneumoniae, Treponema palladium and Chlamydia
CC
CC
     trachomatis. The antibacterial compound may be used as a food grain
     supplement in livestock and poultry food composition. (Updated on 06-AUG-
CC
CC
     2003 to correct OS field.)
XX
     Sequence 21 BP; 6 A; 6 C; 4 G; 5 T; 0 U; 0 Other;
                           100.0%; Score 19; DB 5; Length 21; 100.0%; Pred. No. 2.4;
  Ouery Match
  Best Local Similarity
                                                     0; Indels
                                                                   0; Gaps
  Matches 19; Conservative
                                  0; Mismatches
            1 TGCGGGACTTAACCCAACA 19
Qγ
               111111111111111111111
            2 TGCGGGACTTAACCCAACA 20
RESULT 7
AAN82163/c
ΙD
     AAN82163 standard; DNA; 23 BP.
```

```
AC
    AAN82163;
XX
DΤ
     25-MAR-2003 (revised)
DT
     12-DEC-1990 (first entry)
XX
     Sequence #21 recognised by probe for 16S RNA gene of mycoplasma.
DE
XX
KW
    Mollicutes.
XX
     Mycoplasma.
OS
XX
ΡN
     EP250662-A.
XX
     07-JAN-1988.
XX
     25-JUN-1986;
                    86EP-00304919.
PF
XX
                   86EP-00304919.
PR
     25-JUN-1986;
XX
     (REGC ) UNIV CALIFORNIA.
PΑ
XX
PΙ
     Gobel U, Stanbridge EJ;
XX
     WPI; 1988-000726/01.
DR
XX
     Detection of prokaryotic organisms - esp. mycoplasma by hybridisation
PT
PT
     with an oligo:nucleotide probe complementary to nucleotide sequence in
PΤ
     the prokaryote.
XX
PS
     Claim 16; Page 6; 9pp; English.
XX
     A probe which is complementary to this sequence can be used to detect
CC
CC
     prokaryotes. See also AAN82143-71. (Updated on 25-MAR-2003 to correct PA
CC
     field.)
XX
     Sequence 23 BP; 5 A; 5 C; 7 G; 6 T; 0 U; 0 Other;
                          100.0%; Score 19; DB 1; Length 23;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 2.5;
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
  Matches 19; Conservative
            1 TGCGGGACTTAACCCAACA 19
Qγ
              111111111111
Db
           19 TGCGGGACTTAACCCAACA 1
RESULT 8
AAV45647/c
TD
     AAV45647 standard; DNA; 23 BP.
XX
     AAV45647;
AC
XX
DT
     04-MAR-1999 (first entry)
XX
     Probe for prokaryotic 16S RNA gene.
DE
XX
     Probe; 16S RNA gene; mycoplasma; detection; prokaryote; diagnosis;
KW
KW
     bacteraemia; septicaemia; ss.
XX
OS
     Synthetic.
XX
PN
     US5851767-A.
XX
PD
     22-DEC-1998.
XX
     06-JUN-1995;
                    95US-00469600.
PF
XX
PR
     04-MAR-1985;
                    85US-00707725.
                    88US-00191852.
PR
     06-MAY-1988;
     27-NOV-1991;
                    91US-00799856.
                    93US-00020874.
PR
     19-FEB-1993;
PR
     14-OCT-1993;
                    93US-00136723.
XX
PΑ
     (REGC ) UNIV CALIFORNIA.
XX
     Stanbridge EJ, Gobel U;
```

```
XX
DR
     WPI; 1999-094418/08.
XX
     Detection of mycoplasma-specific or prokaryote-specific nucleic acids -
PT
PT
     using mycoplasma-specific or prokaryote-specific probes.
XX
     Claim 3; Col 8; 11pp; English.
XX
     This sequence represents a probe based on prokaryotic 16S RNA genes that
CC
CC
     can be used in the method of the invention. The method is for detecting
     the presence of prokaryotic specific nucleic acids, and comprises: (a)
CC
CC
     contacting a medium, which may contain a nucleic acid or nucleic acid
CC
     fragment from the prokaryote having a particular nucleotide sequence,
     with an oligonucleotide comprising a nucleotide sequence complementary to
CC
CC
     the particular nucleotide sequence, whereby the oligonucleotide
CC
     hybridises with any nucleic acid or nucleic acid fragment from the
     prokaryote which may be present in the medium; and (b) detecting the
CC
CC
     presence of any nucleic acid or nucleic acid fragment hybridised with the
CC
     oligonucleotide. The invention also relates to a method for determining
CC
     the presence of a mycoplasma. The detection process is useful for
CC
     contaminated cell cultures or other biological environments. The probes
CC
     can be used in the diagnosis of bacteraemia or septicaemia in mammals.
CC
     The process provides a rapid, simple, effective, sensitive and specific
CC
     mycoplasma detection system. The probes can be made specific for
     individual mycoplasma, acholeplasma, ureaplasma, spiroplasma, and
CC
CC
     eubacterial species
XX
     Sequence 23 BP; 5 A; 5 C; 7 G; 6 T; 0 U; 0 Other;
SO
  Query Match 100.0%; Score 19; DB 2; Length 23; Best Local Similarity 100.0%; Pred. No. 2.5;
  Matches 19; Conservative
                                 0; Mismatches
                                                     0; Indels
                                                                       Gaps
                                                                                0:
Qy
            1 TGCGGGACTTAACCCAACA 19
              11111111111111111111
Db
           19 TGCGGGACTTAACCCAACA 1
RESULT 9
AAV62776/c
    AAV62776 standard; RNA; 23 BP.
ID
XX
AC
     AAV62776;
XX
DT
     04-MAR-1999 (first entry)
XX
     Probe for prokaryotic 16S RNA gene.
DE
XX
     Probe; 16S RNA gene; mycoplasma; detection; prokaryote; diagnosis;
KW
KW
     bacteraemia; septicaemia; ss.
XX
OS
     Synthetic.
XX
     US5851767-A.
XX
PD
     22-DEC-1998.
XX
     06-JUN-1995:
                    95US-00469600.
PF
XX
                    85US-00707725.
PR
     04-MAR-1985;
                    88US-00191852.
     06-MAY-1988;
PR
     27-NOV-1991;
                    91US-00799856.
PR
     19-FEB-1993;
                    93US-00020874.
PR
PR
     14-OCT-1993;
                    93US-00136723.
XX
     (REGC ) UNIV CALIFORNIA.
PA
XX
PΙ
    Stanbridge EJ, Gobel U;
XX
DR
     WPI; 1999-094418/08.
XX
     Detection of mycoplasma-specific or prokaryote-specific nucleic acids -
PT
PT
     using mycoplasma-specific or prokaryote-specific probes.
XX
PS
     Claim 19; Col 11; 11pp; English.
XX
```

```
CC
    This sequence represents a probe based on prokaryotic 16S RNA genes that
    can be used in the method of the invention. The method is for detecting
CC
     the presence of prokaryotic specific nucleic acids, and comprises: (a)
CC
    contacting a medium, which may contain a nucleic acid or nucleic acid
CC
     fragment from the prokaryote having a particular nucleotide sequence,
CC
CC
    with an oligonucleotide comprising a nucleotide sequence complementary to
CC
     the particular nucleotide sequence, whereby the oligonucleotide
    hybridises with any nucleic acid or nucleic acid fragment from the
CC
     prokaryote which may be present in the medium; and (b) detecting the
CC
CC
    presence of any nucleic acid or nucleic acid fragment hybridised with the
CC
     oligonucleotide. The invention also relates to a method for determining
     the presence of a mycoplasma. The detection process is useful for
CC
    contaminated cell cultures or other biological environments. The probes
CC
CC
     can be used in the diagnosis of bacteraemia or septicaemia in mammals.
    The process provides a rapid, simple, effective, sensitive and specific mycoplasma detection system. The probes can be made specific for \frac{1}{2}
CC
CC
CC
     individual mycoplasma, acholeplasma, ureaplasma, spiroplasma, and
CC
    eubacterial species
XX
     Sequence 23 BP; 5 A; 5 C; 7 G; 0 T; 6 U; 0 Other;
                          100.0%; Score 19; DB 2; Length 23;
                        100.0%; Pred. No. 2.5;
  Best Local Similarity
                                 0: Mismatches
                                                   0; Indels
                                                                   0; Gaps
                                                                               0:
 Matches 19; Conservative
            1 TGCGGGACTTAACCCAACA 19
Qу
              Db
           19 TGCGGGACTTAACCCAACA 1
RESULT 10
AAZ44009/c
ID
    AAZ44009 standard; DNA; 23 BP.
XX
    AAZ44009:
AC.
XX
DT
    17-MAR-2000 (first entry)
XX
     Enterobacteriaceae detecting probe #2.
XX
     Detection; microorganism; primer; probe; cosmetic; food; ss.
KW
XX
os
     Bacteria.
XX
PN
     W09958713-A2.
XX
PD
     18-NOV-1999.
XX
                    99WO-DE001471.
PF
     10-MAY-1999;
XX
     12-MAY-1998;
                    98DE-01022108.
PR
XX
PA
     (BIOI-) BIOINSIDE GMBH.
XX
PΙ
     Gerbling K, Lauter F, Grohmann L;
XX
     WPI: 2000-072341/06.
DR
XX
     A test kit for detecting microbially soiled, non sterile products,
PT
     especially pharmaceuticals and cosmetics.
PT
XX
PS
     Example 26; Page 77; 77pp; German.
XX
CC
     This invention describes a novel test kit to detect microbially soiled,
     non-sterile products, in particular after GMP-rich lines, also in
CC
     cosmetics and food. The method involves the use of DNA fragment having a
CC
     forward primer, probe, a reverse primer and if necessary a spacer
     oligonucleotide. The test kit and method are useful for economic
CC
     detection of germs in pharmaceutical and cosmetic products. In particular
CC
     the method is useful for detecting E. coli, P. aeruginosa, S. aureus and
CC
CC
XX
     Sequence 23 BP; 5 A; 5 C; 7 G; 6 T; 0 U; 0 Other;
                           100.0%; Score 19; DB 3; Length 23;
  Best Local Similarity
                           100.0%; Pred. No. 2.5;
```

```
Matches
                                19; Conservative
                                                                                         0: Mismatches
                                                                                                                                         0: Indels
                                                                                                                                                                               0; Gaps
                                                                                                                                                                                                              0:
                                1 TGCGGGACTTAACCCAACA 19
Qy
                                      11111111111111111111
                              20 TGCGGGACTTAACCCAACA 2
Db
RESULT 11
AAH44156/c
            AAH44156 standard; DNA; 23 BP.
ID
XX
             AAH44156;
AC
XX
             14-SEP-2001 (first entry)
DT
XX
             Escherichia coli 16S RNA gene oligonucleotide #10.
DΕ
XX
KW
             Mycoplasma; 16S RNA gene; infection; biological probe; detection;
KW
             ribosomal RNA gene; prokaryote; ss.
XX
os
             Escherichia coli.
XX
PN
             US6245509-B1.
XX
PD
        . 12-JUN-2001.
XX
                                                     98US-00152375.
             14-SEP-1998;
PF
XX
PR
             04-MAR-1985;
                                                     85US-00707725.
             06-MAY-1988;
                                                     88US-00191852.
PR
PR
             27-NOV-1991;
                                                     91US-00799856.
             19-FEB-1993;
                                                     93US-00020874.
PR
                                                      93US-00136723.
PR
             14-OCT-1993;
PR
             06-JUN-1995;
                                                      95US-00469600.
XX
              (REGC ) UNIV CALIFORNIA.
PA
XX
             Stanbridge EJ, Gobel UB;
PΙ
XX
DR
             WPI; 2001-416908/44.
XX
PT
             Generating oligonucleotide probes, which are useful in DNA hybridization
РΤ
              techniques for detecting mycoplasmas or prokaryotes in general.
XX
PS
             Disclosure; Col 2; 6pp; English.
XX
CC
             The present invention describes a method for obtaining oligonucleotide
CC
             probes, comprising synthesising and isolating an oligonucleotide
             comprising a sequence identical to a sequence identified as hybridisable
CC
CC
             under predetermined conditions to a nucleotide sequence from one or more
CC
              target organisms. The oligonucleotide probes are hybridisable to a
             nucleotide sequence contained by or specific to one or more target % \left( 1\right) =\left( 1\right) \left( 1\right) 
CC
CC
              organisms but not to one or more selected non-target organisms in a
CC
             sample. The target and non-target organisms do not have a cellular
CC
             nucleus or are no higher phylogenetically than prokaryotes. The method
CC
              comprises: (a) obtaining particular nucleotide sequence information of
             one or more of the target organisms; (b) obtaining particular nucleotide
CC
CC
              sequence information of one or more of the selected non-target organisms;
CC
              (c) comparing the target and non-target sequence information and
CC
              identifying from it at least one oligonucleotide sequence that is
CC
             hybridisable under the predetermined conditions to a nucleotide sequence
CC
              from the target organisms, but not to a nucleotide sequence of non-target
             organisms; and (d) synthesising and isolating an oligonucleotide
CC
CC
              comprising a sequence identical to the identified sequence. The method
CC
              can be used for generating oligonucleotide probes for detecting
CC
             mycoplasmas or prokaryotes in general. The present sequence represents an
CC
             Escherichia coli 16S RNA gene oligonucleotide which is given in the
CC
             exemplification of the present invention
XX
              Sequence 23 BP; 5 A; 5 C; 7 G; 6 T; 0 U; 0 Other;
SQ
                                                                      100.0%; Score 19; DB 4; Length 23;
      Query Match
      Best Local Similarity
                                                                     100.0%; Pred. No. 2.5;
     Matches 19: Conservative
                                                                                        0; Mismatches
                                                                                                                                       0; Indels
                                                                                                                                                                               0; Gaps
                                                                                                                                                                                                               0:
                                1 TGCGGGACTTAACCCAACA 19
Ον
```

```
111111111111111111111
Db
           19 TGCGGGACTTAACCCAACA 1
RESULT 12
ABK90486
    ABK90486 standard; DNA; 25 BP.
ID
XX
     ABK90486;
AC
XX
DT
     05-NOV-2002 (first entry)
XX
     Synthetic polynucleotide probe #2.
DE
XX
KW
     Polycationic polymer; nucleic acid hybridisation; probe; ss;
KW
     disease-associated gene; polymorphism.
XX
os
     Synthetic.
XX
PN
     WO200248404-A2.
XX
PD
     20-JUN-2002.
XX
     07-DEC-2001; 2001WO-US048592.
PF
XX
PR
     14-DEC-2000; 2000US-0255535P.
XX
PA
     (GENP-) GEN-PROBE INC.
XX
PΙ
     Becker MM;
XX
     WPI; 2002-608283/65.
DR
XX
PT
     Forming duplexes from probe and target nucleic acid for diagnosing
     presence or absence of virus or organism in a sample, by conducting
PT
PT
     hybridization between the two in the presence of a synthetic polycationic
PT
     polymer.
XX
PS
     Example 2; Page 49; 63pp; English.
XX
CC
     The invention relates to forming a duplex from a polynucleotide probe and
CC
     a target nucleic acid comprising providing the probe to a test sample
CC
     under conditions permitting the probe to preferentially hybridise to the
CC
     target nucleic acid in the sample and providing a synthetic polycationic
CC
     polymer to the sample which increases the association rate of the probe
     and the target nucleic acid. The method is useful for forming a duplex
CĊ
CC
     from a probe and a target nucleic acid comprising RNA (mRNA or rRNA). The
CC
     probe preferentially hybridises to a target nucleic acid sequence
     contained in the target nucleic acid under the conditions, which is
CC
CC
     useful for diagnosing the presence or absence of a virus or organism or
     members of a group of viruses or organisms in the sample. The method is
CC
CC
     also useful for detecting the presence of a disease-associated gene,
CC
     determining the state of a disease, measuring levels of gene expression
     and detecting mutations or polymorphisms in a test sample. This sequence
CC
CC
     represents a probe used in the method of the invention
XX
     Sequence 25 BP; 6 A; 7 C; 6 G; 6 T; 0 U; 0 Other;
SQ
  Ouerv Match
                          100.0%; Score 19; DB 6; Length 25;
  Best Local Similarity 100.0%; Pred. No. 2.5;
           19; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
                                                                              0:
Qу
            1 TGCGGGACTTAACCCAACA 19
              11111111111111111
            6 TGCGGGACTTAACCCAACA 24
RESULT 13
ADP47355/c
    ADP47355 standard; DNA; 25 BP.
XX
AC
     ADP47355:
XX
DT
     09-SEP-2004 (first entry)
XX
     Intelligent PCR primer for the identification of bacteria SeqID 10.
```

```
XX
KW
     PCR; ss; primer; pharmacogenetic analysis; medical diagnosis; cancer;
    blood typing; virus stereotyping; pathogen; mass spectroscopy;
KW
ΈW
     etiologic agent.
XX
OS
     Synthetic.
XX
    WO2004052175-A2.
PN
XX
PD
     24-JUN-2004.
XX
    05-DEC-2003; 2003WO-US038830.
PF
XX
    06-DEC-2002; 2002US-0431319P.
PR
PR
     18-DEC-2002; 2002US-00323233.
    18-DEC-2002; 2002US-00325526.
PR
PR
    18-DEC-2002; 2002US-00325527.
PR
     18-DEC-2002; 2002US-00326051.
    29-JAN-2003; 2003US-0443443P.
PR
   30-JAN-2003; 2003US-0443788P.
PR
     14-FEB-2003; 2003US-0447529P.
    11-SEP-2003; 2003US-00660122.
PR
     (ISIS-) ISIS PHARM INC.
PA
XX
     Ecker DJ, Griffey RH, Hofstadler SA, Sampath R, Mcneil J;
PΙ
PΙ
     Crooke ST:
XX
DR
     WPI: 2004-468672/44.
XX
PT
     Identifying a pathogen in a biological sample, useful in medical
PT
     diagnosis, comprises amplifying a nucleic acid from the sample with a
     pair of intelligent primers, and determining the molecular mass of the
PT
PT
     amplification product.
XX
PS
     Example 15; SEQ ID NO 10; 228pp; English.
XX
     This invention relates to a novel method for the rapid identification of
CC
CC
     pathogens occurring in environmental samples or biological samples
CC
     derived from humans and animals. Specifically, it refers to using
     intelligent primers to obtain an amplification product in order that the
CC
CC
     molecular mass of the amplicon can be determined by mass spectroscopy,
CC
     which in turn identifies the pathogen found in the sample. The present
     invention describes the rapid detection and identification of an % \left( 1\right) =\left( 1\right) 
CC
     etiologic agent that does not required nucleic acid sequencing, and
     instead relies on the use of intelligent primers to target ribosomal RNA
CC
CC
     or housekeeping genes. Accordingly, this method can be used to identify a
CC
     pathogen or infectious agent in a biological sample, which is useful in
     pharmacogenetic analysis and medical diagnosis (including cancer
CC
CC
     diagnosis based on mutations and polymorphisms), or for detecting single
CC
     nucleotide polymorphisms in blood typing or stereotyping of viruses. This
     oligonucleotide sequence is an intelligent PCR primer used to identify
CC
CC
     different bacterial strains, given in an exemplification of the
CC
     invention.
XX
     Sequence 25 BP; 6 A; 5 C; 8 G; 6 T; 0 U; 0 Other;
                          100.0%; Score 19; DB 12; Length 25;
  Query Match
                          100.0%; Pred. No. 2.5;
  Best Local Similarity
                                 0; Mismatches
                                                    0: Indels
                                                                               0;
  Matches 19; Conservative
            1 TGCGGGACTTAACCCAACA 19
Qy
              Db
           20 TGCGGGACTTAACCCAACA 2
RESULT 14
ADQ59713/c
     ADQ59713 standard; DNA; 25 BP.
ID
XX
AC
     ADQ59713;
XX
     07-OCT-2004 (first entry)
DT
XX
DE
     Intelligent PCR primer 16S_EC_1082_1197 forward SEQ ID NO:10.
```

```
ss; etiologic agent; disease; intelligent primer;
KW
    pathogen identification; PCR; primer.
XX
os
     Synthetic.
XX
PN
     W02004060278-A2.
XΧ
     22-JUL-2004.
PD
XX
     05-DEC-2003; 2003WO-US038761.
PF
XX
     06-DEC-2002; 2002US-0431319P.
PR
    18-DEC-2002; 2002US-00323233.
PR
PR
     18-DEC-2002; 2002US-00325526.
PR
     18-DEC-2002; 2002US-00325527.
     18-DEC-2002; 2002US-00326051.
PR
PR
     29-JAN-2003; 2003US-0443443P.
PR
     30-JAN-2003; 2003US-0443788P.
     14-FEB-2003; 2003US-0447529P.
PR
PR
     11-SEP-2003; 2003US-0501926P.
XX
PA
     (ISIS-) ISIS PHARM INC.
XX
     Ecker DJ, Griffey RH, Sampath R, Hofstadler SA, Mcneil J;
PΙ
PΤ
     Crooke ST, Blyn LB, Ranken R, Hall TA;
XX
    WPI; 2004-534302/51.
DR
XX
PT
     Identifying pathogens in humans or animals comprises amplifying a nucleic
PT
     acid molecule from the individual with intelligent primers to obtain
PT
     amplification products, and determining molecular masses of the
PT
     amplification products.
XX
PS
     Claim 40; SEQ ID NO 10; 184pp; English.
XX
CC
     The invention relates to a novel method for identifying etiologic agents
CC
     of disease in an individual comprising amplifying a nucleic acid from a
CC
     biological sample of the individual with intelligent primers to obtain
CC
     amplification products corresponding to the etiologic agents, and
CC
     determining the molecular masses of the amplification products. The
CC
     composition and methods of the invention are useful for identifying
CC
     pathogens in biological samples from humans and animals, resolving
CC
     etiologic agents present in samples obtained from humans and animals,
CC
     determining detailed genetic information about such pathogens or
CC
     etiologic agents, and for rapidly detecting and identifying bioagents
CC
     from environmental, clinical or other samples. The present sequence
CC
     represents an intelligent PCR primer of the invention.
XX
     Sequence 25 BP; 6 A; 5 C; 8 G; 6 T; 0 U; 0 Other;
                          100.0%; Score 19; DB 12; Length 25;
  Best Local Similarity 100.0%; Pred. No. 2.5;
 Matches 19; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
            1 TGCGGGACTTAACCCAACA 19
Qу
              111111111111111111111
Db
           20 TGCGGGACTTAACCCAACA 2
RESULT 15
AED28542/c
    AED28542 standard; DNA; 25 BP.
ΙD
XX
AC
    AED28542;
XX
    15-DEC-2005 (first entry)
DT
XX
     Primer for PCR detection of 16S ribosomal RNA, SEQ ID NO:3.
DE
XX
KW
    Microorganism detection; biological warfare; DNA identification;
KW
     DNA amplification; ss; primer; PCR; 16S ribosomal RNA.
XX
OS
     Escherichia coli.
XX
PN
     W02005098047-A2.
XX
```

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PD
    20-OCT-2005.
XX
    18-FEB-2005; 2005WO-US005356.
PF
XX
    18-FEB-2004; 2004US-0545425P.
PR
    05-APR-2004; 2004US-0559754P.
PR
PR
    03-DEC-2004; 2004US-0632862P.
     22-DEC-2004; 2004US-0639068P.
PR
    28-JAN-2005; 2005US-0648188P.
PR
XX
     (ISIS-) ISIS PHARM INC.
PΑ
PΑ
     (SCIT-) SCI APPL INT CORP.
XX
     Sampath R, Hall TA, Ecker DJ, Eschoo MW, Massire C, Larson BM;
PΙ
PΙ
     Leighton T;
XX
    WPI; 2005-703571/72.
DR
XX
    New oligonucleotide primer having a non-template tag, useful in preparing
PТ
    a composition for determining the presence or absence of a bacterium of a
PT
PT
    particular class, genus, species, or sub-species in a sample.
XX
PS
     Example 1; SEQ ID NO 3; 260pp; English.
XX
    The new invention relates to genetic identification of bacteria.
CC
CÇ
     Specifically claimed is a new oligonucleotide primer which has at least
    one non-template tag. The primers are designed to produce bacterial
CC
    bioagent identifying amplicons of DNA encoding genes essential to life,
CC
CC
     such as 16S, 23S rRNA, DNA-directed RNA polymerase subunits (rpoB and
     rpoC), valyl-tRNA synthetase (valS), elongation factor EF-Tu (TufB),
CC
CC
     ribosomal protein L2 (rplB), protein chain initiation factor (infB), and
    spore protein (sspE). Also given is a composition comprising 1, 2 or more
CC
CC
    of the oligonucleotide primers; a kit comprising the composition; a
    method for identifying an unknown bacterium; a method of determining the
    presence or absence of a bacterium of a particular class, genus, species,
CC
CC
     or sub-species in a sample; and a method for determining the quantity of
    an unknown bacterium in a sample. Either or both of the oligonucleotide
    primers comprises at least one modified nucleobase, a non-templated \ensuremath{\mathtt{T}}
CC
CC
     residue on the 5'-end, at least one non-template tag, molecular mass
CC
    modifying tag or modified nucleobase. The oligonucleotide primers are
     useful in preparing a composition for identifying an unknown bacterium,
CC
CC
     determining the presence or absence of a bacterium of a particular class,
CC
     genus, species, or sub-species in a sample or determining the quantity of
CC
    an unknown bacterium in a sample. The present sequence is a primer from a
CC
     collection of primers used to identify bacteria using the described
    methods. This primer detects a region of the gene encoding 16S ribosomal
CC
CC
    RNA in an E.coli reference sequence.
XX
     Sequence 25 BP; 6 A; 5 C; 8 G; 6 T; 0 U; 0 Other;
  Query Match
                          100.0%; Score 19; DB 14; Length 25;
  Best Local Similarity 100.0%; Pred. No. 2.5;
  Matches 19; Conservative
                                 0; Mismatches
                                                    0;
                                                        Indels
                                                                  0; Gaps
                                                                              0;
            1 TGCGGGACTTAACCCAACA 19
Qу
              111111111111111111111
           20 TGCGGGACTTAACCCAACA 2
Db
RESULT 16
AAN80834
ΙĐ
    AAN80834 standard; DNA; 26 BP.
XX
AC
    AAN80834;
XX
     25-MAR-2003 (revised)
DT
DT
     30-NOV-1990 (first entry)
XX
     Probe no.3 for 16S rRNA of a broad phylogenetic range of bacteria.
DF.
XX
KW
     Bacteria; probe; 16S ribosomal RNA; ss.
XX
     Synthetic.
os
XX
PN
     W08803957-A.
```

```
PD
    02-JUN-1988.
XX
     24-NOV-1987;
                    87WO-US003009.
PF
XX
     24-NOV-1986;
                    86US-00934244.
PR
PR
     07-AUG-1987;
                   87US-00083542.
XX
     (GENP-) GEN-PROBE INC.
PA
PA
     (HOGA/) HOGAN J J.
XX
    WPI; 1988-161626/23.
DR
XX
PT
     Probes for non-viral organisms - comprising an oligo:nucleotide
     complementary to a unique variable region {\bf r} RNA sequence.
PT
XX
     Claim 221; Page 161; 211pp; English.
PS
XX
CC
     The probe is designed to hybridise with 16S rRNA from a broad range of
    bacteria commonlyt found in urine but not to yeast or human rRNA. It
CC
     corresponds to bases 1080-1110 of the E. coli 16S RNA and has a Tm of 67
CC
     deg.C. See also AAN80785-N80851. (Updated on 25-MAR-2003 to correct PA
CC
CC
     field()
XX
     Sequence 26 BP; 6 A; 8 C; 6 G; 6 T; 0 U; 0 Other;
                          100.0%; Score 19; DB 1; Length 26;
  Best Local Similarity 100.0%; Pred. No. 2.5;
                                                                              0:
  Matches 19; Conservative
                                 0; Mismatches
                                                    0; Indels
                                                                  0; Gaps
            1 TGCGGGACTTAACCCAACA 19
Qу
              11:11:11:11
            7 TGCGGGACTTAACCCAACA 25
RESULT 17
AAN97224
ΙD
    AAN97224 standard; DNA; 26 BP.
XX
AC
    AAN97224;
XX
DT
     06-JUL-1993 (first entry)
XX
DΕ
     Probe contg. 5'-amine linker-arm.
XX
KW
     Deoxyoligonucleotide; probe; amine; label; acridinium ester; AE;
KW
     hybridisation assay; ss.
XX
os
     Synthetic.
XX
FH
                     Location/Qualifiers
     modified base
FT
                     /*tag= a
FT
FT
                     /note= "comprises NH2-(CH2)6 as 5'-amine linker-arm"
XX
     W08902476-A.
PN
XX
     23-MAR-1989.
PD
XX
     21-SEP-1988;
                    88WO-US003195.
PF
XX
PR
     21-SEP-1987;
                    87US-00099392.
XX
     (MLTE-) ML TECHN VENTURES.
PA
XX
ΡI
     Arnold L, Nelson NC;
XX
     WPI; 1989-100016/13.
DR
XX
     Homogeneous binding assay using degradable label esp. acridinium ester -
PT
     with different stabilities in bound and unbound forms, esp. useful in
PΤ
     hybridisation detection of specific polynucleotide.
XX
     Example 1(i); Page 20; 64pp; English.
XX
     Deoxyoligonucleotide probes were synthesised to contain an amine linker-
CC
     arm (i.e., one which terminates in a primary amine for labelling with
```

```
CC
     acridinium ester) located either at the 5'-terminus, at a specific
CC
     preselected location along the polyphosphate chain, in the internal
СС
     portion of the probe or attached to one of the nucleotide bases.
CC
     Chemiluminescent acridinium ester labelled probes are used in homogeneous
CC
     hybridisation assay format for sensitively detecting the presence of
CC
     complementary target polynucleotide sequences
XX
     Sequence 26 BP; 6 A; 8 C; 6 G; 6 T; 0 U; 0 Other;
                          100.0%; Score 19; DB 1; Length 26;
  Best Local Similarity
                         100.0%; Pred. No. 2.5;
                                 0; Mismatches
                                                    0: Indels
                                                                  0: Gaps
                                                                              0;
  Matches 19; Conservative
            1 TGCGGGACTTAACCCAACA 19
Qу
              11111111111111111
            7 TGCGGGACTTAACCCAACA 25
Db
RESULT 18
AAQ55675
    AAQ55675 standard; DNA; 26 BP.
ID
XX
AC
     AAQ55675;
XX
     25-MAR-2003 (revised)
DT
DT
     09-AUG-1994 (first entry)
XX
DE
     Amine linker containing probe #1.
XX
     Probe; amine; linker arm; N-acridinium; ester; label; homogeneous;
ΚW
KW
     hybridisation assay; detection; linear dilution series; Chlamydia; rRNA;
KW
     ss.
XX
os
     Synthetic.
XX
FΗ
                     Location/Qualifiers
FT
     modified base
                     /*tag= a
FT
                     /label= NH2-(CH2)6-G
FT
FT
                     /note= "Amine linker arm"
XX
PN
     US5283174-A.
XX
     01-FEB-1994.
PD
XX
     08-NOV-1990;
                    90US-00613603.
PF
XX
PR
     21-SEP-1987;
                    87US-00099392.
     12-DEC-1988;
                    88US-00294700.
PR
PR
     23-MAY-1990;
                    90US-00528920.
XX
     (GENP-) GEN-PROBE INC.
PA
XX
     Nelson NC, Arnold LJ;
PΙ
XX
DR
     WPI; 1994-048084/06.
XX
     Homogeneous nucleic acid hybridisation assay - using probe labelled with
PT
PT
     acridinium ester for detection of linear dilution series.
XX
PS
     Example 1; Col 12; 20pp; English.
XX
     This sequence represents a probe which contains an amine linker arm which
CC
CC
     may bear an N-acridinium ester label. Probes such as this may be used in
     an homogeneous hybridisation assay for determining the presence or amount
CC
     of a target nucleic acid in a sample. This method comprises contacting
CC
CC
     the sample with a probe such as this, such that the acrinidium ester
     label may be degraded by a chemical, eg. acid, base or oxidising agent,
CC
CC
     while duplex-linked N-acrinidium ester remains undegraded. The
CC.
     hybridisation mixture is treated with the chemical and the amount of
CC
     undegraded N-acrinidium ester is measured without physically separating
     any unhybridised probe. The method is capable of detecting linear
CC
CC
     dilution series, eg. Chlamydia rRNA with a detection limit of 0.1-1 ng.
CC
     (Updated on 25-MAR-2003 to correct PF field.)
XX
     Sequence 26 BP; 6 A; 8 C; 6 G; 6 T; 0 U; 0 Other;
```

```
100.0%; Score 19; DB 2; Length 26; 100.0%; Pred. No. 2.5;
 Ouerv Match
 Best Local Similarity
                                                    0; Indels
 Matches 19; Conservative
                                 0; Mismatches
                                                                   0; Gaps
                                                                               0:
            1 TGCGGGACTTAACCCAACA 19
              111111111111111111111
            7 TGCGGGACTTAACCCAACA 25
Db
RESULT 19
AAT73684
     AAT73684 standard; RNA; 26 BP.
ID
XX
AC
    AAT73684;
XX
DT
     05-SEP-1997 (first entry)
XX
     RNA acridinium ester-labelled probe for adduct protection assay.
DE
XX
KW
     probe; assay; analyte; adduct protection; detection; acridinium ester;
KW
     nucleic acid hybridisation; ss.
XX
OS
     Synthetic.
XX
FH
                     Location/Qualifiers
     Keγ
FT
     misc_feature
                     complement(1. .26)
FT
                     /*tag= b
                     /note= "used as target sequence - no label"
FT
FT
     modified_base
                     16
FT
                     /*tag=
                     /note= "Acridinium ester labelled uracil"
FT
XX
PN
     EP747706-A1.
XX
PD
     11-DEC-1996.
XX
     03-JUN-1996;
                    96EP-00108880.
PF
XX
PR
    '07-JUN-1995;
                    95US-00478221.
XX
PA
     (GENP-) GEN-PROBE INC.
XX
PΙ
     Becker M, Nelson NC;
XX
     WPI; 1997-023324/03.
DR
XX
     Specific binding assay using signal-altering reagent - that
PT
     preferentially alters signal of unbound probe.
XX
PS
     Example 5; Page 16; 37pp; English.
XX
CC
     Assaying for the presence of an analyte in a sample comprises using an
CC
     adduct protection assay involving the use of a labelled binding partner
CC
     and a signal altering ligand. The signal altering ligand can alter the
CC
     signal from the label to a greater extent when the labelled binding
     partner is unbound than when it is bound to the analyte. The presence or
CC
CC
     amount of analyte can be determined by detecting the signal produced from
     unaltered label. The process is used especially for detecting nucleic
CC
     acid (esp. RNA) sequences by homogeneous hybridisation assay. The assay
CC
CC
     is versatile, e.g. signal alteration can be effected under a wide range
     of conditions (e.g. pH, temperature and ionic strength) and both signal
CC
     alteration and signal triggering can be effected at constant temperature
CC
     to achieve high sensitivity. The relationship between adduct formation
     rates and the type of nucleic acid (RNA or DNA) present in the probe or
     target has been examined. It was found that adduct formation rates depend
CC
CC
     upon whether a probe and/or target is DNA or RNA and these rates do not
CC
     directly correlate with the corresponding hydrolysis rates of labels
CC
     identically associated with these molecules. The present sequence is an
CC
     RNA AE-labelled probe
XX
     Sequence 26 BP; 6 A; 8 C; 6 G; 0 T; 6 U; 0 Other;
                          100.0%; Score 19; DB 2; Length 26;
  Query Match
                          84.2%; Pred. No. 2.5;
  Best Local Similarity
                                 3; Mismatches
 Matches 16; Conservative
                                                    0; Indels
                                                                      Gaps
```

```
Qу
            1 TGCGGGACTTAACCCAACA 19
              7 UGCGGGACUUAACCCAACA 25
Db
RESULT 20
AAT73680
    AAT73680 standard; DNA; 26 BP.
ID
XX
AC
     AAT73680;
XX
DT
     05-SEP-1997 (first entry)
XX
DE
    Acridinium ester labelled probe 3 for adduct protection assay.
XX
     probe; assay; analyte; adduct protection; detection; acridinium ester;
KW
KW
     nucleic acid hybridisation; ss.
XX
os
     Synthetic.
XX
                     Location/Qualifiers
FH
     Kev
FT
    misc_feature
                     complement(1. .26)
FT
                     /*tag= b
                     /note= "used as target sequence - no label"
FT
FT
    modified base
                     16
FT
                     /*tag=
FT
                     /note= "Acridinium ester labelled thymine"
XX
     EP747706-A1.
PN
XX
PD
     11-DEC-1996.
XX
     03-JUN-1996;
                    96EP-00108880.
PF
XX
PR
     07-JUN-1995;
                    95US-00478221.
XX
PA
     (GENP-) GEN-PROBE INC.
XX
PΙ
     Becker M, Nelson NC;
XX
DR
     WPI; 1997-023324/03.
XX
     Specific binding assay using signal-altering reagent - that
PT
PT
    preferentially alters signal of unbound probe.
XX
PS
     Example 3; Page 13; 37pp; English.
XX
CC
     Assaying for the presence of an analyte in a sample comprises using an
CC
     adduct protection assay involving the use of a labelled binding partner
CC
     and a signal altering ligand. The signal altering ligand can alter the
CC
     signal from the label to a greater extent when the labelled binding
CC
    partner is unbound than when it is bound to the analyte. The presence or
CC
     amount of analyte can be determined by detecting the signal produced from
CC
     unaltered label. The process is used especially for detecting nucleic
CC
    acid (esp. RNA) sequences by homogeneous hybridisation assay. The assay
CC
     is versatile, e.g. signal alteration can be effected under a wide range
CC
     of conditions (e.g. pH, temperature and ionic strength) and both signal
     alteration and signal triggering can be effected at constant temperature
CC
CC
     to achieve high sensitivity. The effect different acridinium ester (AE)
CC
     derivative structures have on adduct formation rates was measured using
CC
     the present sequence as the AE-labelled probe and its complement as the
CC
     target. AE having unsubstituted acridinium rings form adducts with sodium
CC
     sulphite and metabisulphite at about the same rate. In contrast 1-methyl-
CC
    AE and 2,7-di-methyl-AE formed adducts more than ten times slower than
CC
     the unsubstituted AE derivatives
XX
     Sequence 26 BP; 6 A; 8 C; 6 G; 6 T; 0 U; 0 Other;
  Query Match
                          100.0%;
                                   Score 19; DB 2; Length 26;
                         100.0%; Pred. No. 2.5;
 Best Local Similarity
           19; Conservative
                                 0; Mismatches
                                                   0; Indels
                                                                  0; Gaps
                                                                              0;
            1 TGCGGGACTTAACCCAACA 19
Qу
              1111111111111111111111
            7 TGCGGGACTTAACCCAACA 25
```

Search completed: July 26, 2006, 15:58:55

Job time: 214.707 secs

SCORE 1.3 BuildData: 12/06/2005

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BN): X87272
GenBank VERSION (VER): X87272.1 GI:1165003
CAS REGISTRY NO. (RN): 172819-38-4
SEQUENCE LENGTH (SQL): 1484
MOLECULE TYPE (CI): DNA; linear DIVISION CODE (CI): Bacteria DATE (DATE): 22 Jan 1996
DEFINITION (DEF):
                       B.japonicum 16S rRNA gene.
SOURCE:
                       Bradyrhizobium japonicum.
 ORGANISM (ORGN):
                       Bradyrhizobium japonicum
                       Bacteria; Proteobacteria; alpha subdivision;
                       Rhizobiaceae group; Bradyrhizobium group;
                       Bradyrhizobium
NUCLEIC ACID COUNT (NA): 361 a
                               356 c 465 g 298 t 4 others
REFERENCE:
                      1 (bases 1 to 1484)
  AUTHOR (AU):
                      Ludwig, W.
  TITLE (TI):
                       Direct Submission
  JOURNAL (SO):
                       Submitted (18-MAY-1995) W. Ludwig, Lehrstuhl fuer
                       Mikrobiologie, Technische Universitaet Muenchen,
                       Muenchen, FRG
REFERENCE:
                       2 (bases 1 to 1484)
  AUTHOR (AU):
                       Ludwig, W.; Rossello-Mora, R.; Aznar, R.; Klugbauer, S.;
                       Spring,S.; Reetz,K.; Beimfohr,C.; Brockmann,E.;
                       Kirchhof,G.; Dorn,S.; Bachleitner,M.; Klugbauer,N.;
                       Springer, N.; Lane, D.; Nietupsky, R.; Weizenegger, M.;
                       Schleifer, K.H.
  TITLE (TI):
                       Comparative sequence analysis of 23S rRNA from
                       proteobacteria
  JOURNAL (SO): Syst. Appl. Microbiol., 18, 164-188 (1995)
  OTHER SOURCE (OS): CA 124:195266
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Bradyrhizobium japonicum gene for 16S rRNA, strain: IAM

12608.

SOURCE: Bradyrhizobium japonicum

ORGANISM (ORGN): Bradyrhizobium japonicum

Bacteria; Proteobacteria; Alphaproteobacteria;

Rhizobiales; Bradyrhizobiaceae; Bradyrhizobium

REFERENCE: 1 (bases 1 to 1441)

AUTHOR (AU): Yanagi, M.; Yamasato, K.

TITLE (TI): Phylogenetic analysis of the family Rhizobiaceae and

related bacteria by sequencing of 16S rRNA gene using

PCR and DNA sequencer

JOURNAL (SO): FEMS Microbiol. Lett., 107 (1), 115-120 (1993)

OTHER SOURCE (OS): CA 119:155937

REFERENCE: 2 (bases 1 to 1441)

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L2
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GenBank VERSION (VER): X71840.1 GI:468567
CAS REGISTRY NO. (RN): 154450-08-5
SEQUENCE LENGTH (SQL): 2882
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                       28 Mar 1994
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ORGANISM (ORGN):
                     Bradyrhizobium japonicum
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NUCLEIC ACID COUNT (NA): 751 a 656 c 887 g 588 t
REFERENCE:
                       1 (bases 1 to 2882)
  AUTHOR (AU):
                       Springer, N.; Ludwig, W.; Hardarson, G.
  TITLE (TI):
                    A 23S rRNA targeted specific hybridization probe for
                       Bradyrhizobium japonicum
  JOURNAL (SO): Syst. Appl. Microbiol., 16, 468-470 (1993)
  OTHER SOURCE (OS): CA 120:262524
  TERENCE: 2 (bases 1 to 2882)
AUTHOR (AU): Ludwig,W.
TITLE (TI): Direct Submission
JOURNAL (SO): Submitted (05-MAY 10)
REFERENCE:
                       Submitted (05-MAY-1993) W. Ludwig, Lehrst. f.
                       Mikrobiologie TU Muenchen, Arcisstr. 21, 8000 Muenchen
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2881 tt
```

Use of real-time PCR and

fluorimetry for rapid detection of rifampin and

isoniazid resistance-associated mutations in

Mycobacterium tuberculosis TORRES M. J.; CRIADO A.;

PALOMARES J. C.; AZNAR J.

CORPORATE SOURCE:

Unidad de Microbiologia Molecular, Departamento de Microbiologia, Universidad de Sevilla, 41080 Seville,

Spain

Journal of clinical microbiology, (2000), 38(9), SOURCE:

3194-3199, 24 refs.

ISSN: 0095-1137 CODEN: JCMIDW

DOCUMENT TYPE: BIBLIOGRAPHIC LEVEL:

Analytic United States

COUNTRY: LANGUAGE:

AUTHOR:

English

Journal

AVAILABILITY:

INIST-17088, 354000091289690100

ΑN 2000-0532525 PASCAL

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AB Very fast amplification of DNA in small volumes can be continuously monitored with a rapid cycler that incorporates fluorimetric detection. Primers were designed to amplify a 157-bp fragment of the rpoB gene spanning codons 526 and 531 and a 209-bp fragment of the katG gene spanning codon 315 of Mycobacterium tuberculosis. Most mutations associated with resistance to rifampin (RMP) and isoniazid (INH) in clinical isolates occur in these codons. Two pairs of hybridization probes were synthesized; one in each pair was 3' labeled with fluorescein and hybridized upstream of the codon with the mutation; the other two probes were 5' labeled with LightCycler-Red 640. Each pair of probes recognized adjacent sequences in the amplicon. After DNA amplification was finished by using a LightCycler, the temperature at which the Red 640 probe melted from the product was determined in a 3-min melt program. Twenty M. tuberculosis clinical isolates susceptible to streptomycin, INH, RMP, and ethambutol and 36 antibiotic-resistant clinical M. tuberculosis isolates (16 resistant to RMP, 16 to INH, and 4 to both antimicrobial agents) were amplified, and the presence of mutations was determined using single-strand conformation polymorphism analysis, the LiQor automated sequencer, and the LightCycler system. Concordant results were obtained in all cases. Within 30 min, the LightCycler method correctly genotyped all the strains without the need of any post-PCR sample manipulation. Overall, this pilot study demonstrated that real-time PCR coupled to fluorescence

detection is the fastest available method for the detection of RMP and INH resistance-associated mutations in M. tuberculosis clinical isolates.

L5 ANSWER 23 OF 31 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2004:418561 SCISEARCH

THE GENUINE ARTICLE: 814GK

TITLE: Direct detection of rifampin- and isoniazid-resistant

Mycobacterium tuberculosis in auramine-rhodamine-positive

sputum specimens by real-time

AUTHOR: Ruiz M; Torres M J (Reprint); Llanos A C; Arroyo

A; Palomares J C; Aznar J

CORPORATE SOURCE: Fac Med, Dept Microbiol, Apdo 914, Seville 41080, Spain

(Reprint); HH UU Virgen del Rocio, Microbiol Serv,

Seville, Spain; Univ Sevilla, Unidad Microbiol Mol, Dept

Microbiol, Seville, Spain

COUNTRY OF AUTHOR:

Spain

SOURCE: JOURNAL OF CLINICAL MICROBIOLOGY, (APR 2004) Vol. 42, No.

> 4, pp. 1585-1589. ISSN: 0095-1137.

PUBLISHER: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC

20036-2904 USA.

DOCUMENT TYPE: Article; Journal

LANGUAGE: English

REFERENCE COUNT:

AΒ

ENTRY DATE: Entered STN: 21 May 2004

Last Updated on STN: 21 May 2004

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

Our objective was to evaluate the feasibility of a molecular assay based on a real-time PCR technique, carried out with a LightCycler instrument (Roche Biochemicals), to identify Mycobacterium tuberculosis bacilli and to detect rifampin and isoniazid resistance in DNA extracts from sputum samples. We studied three genes: rpoB, which is associated with rifampin resistance, and katG and inhA, which are associated with isoniazid resistance. A total of 205 sputum samples collected from 108 patients diagnosed with pulmonary tuberculosis with positive auramine-rhodamine-staining (AR) sputum samples, were tested. The sensitivities of the LightCycler PCR assay for the positive AR specimens was 97.5% (200 of 205) for rpoB? and inhA genes and 96.5% (198 of 205) for the katG gene. For the total number of patients tested, the sensitivity was 100% (108 of 108 patients) for rifampin, whereas the sensitivity was 98.1% (106 of 108 patients) for isoniazid. Full agreement was found with the Bactec MGIT 960 method and the genotype inferred from the LightCycler data for rifampin. The phenotypic method for isoniazid reported 13 resistant strains (greater than or equal to0.1 mug/ml). In seven (53.8%) strains there was a concordance between both methods, but we found that six (46.2%) strains reported as resistant by the phenotypic method were determined to be susceptible by real-time For the 75 strains reported as susceptible by the phenotypic method, the concordance with the LightCycler data was 100%. Our results demonstrate that rifampin-resistant M. tuberculosis could be detected in DNA extracted from auramine-rhodamine-positive sputum samples in a single-tube assay that took less than 3 h to perform for a collection of auramine-rhodamine-positive specimens obtained from patients with culture-documented pulmonary tuberculosis. Similarly, this occurs in half of the isoniazid-resistant M. tuberculosis DNA extracted from auramine-rhodamine-positive specimens.

FILE 'MEDLINE, AGRICOLA, ANTE, AQUALINE, BIOSIS, BIOTECHNO, CABA, CAPLUS, CBNB, CIN, CONFSCI, CROPB, CROPU, DISSABS, ENVIROENG, ESBIOBASE, FOMAD, FOREGE, FROSTI, FSTA, GENBANK, IFIPAT, INVESTEXT, LIFESCI, NAPRALERT, NTIS, PASCAL, PHIC, PHIN, PROMT, ...' ENTERED AT 15:53:46 ON 31 JUL 2006 303119 S (BRADHYRHIZOBIUM OR JAPONICUM OR RHIZOBIUM)

L1

L2 85 S L1 AND ((REAL-TIME PCR) OR (REAL TIME (3A) POLYMERASE CHAIN 59 DUP REM L2 (26 DUPLICATES REMOVED) L3

## => d 13 ti 1-59

- ANSWER 1 OF 59 USPATFULL on STN L3
- Receptors and membrane-associated proteins TΙ
- L3 ANSWER 2 OF 59 USPATFULL on STN
- ΤI Treatment of fibrosis using FXR ligands
- L3 ANSWER 3 OF 59 USPATFULL on STN
- Molecules for disease detection and treatment ΤI
- L3 ANSWER 4 OF 59 USPATFULL on STN
- ΤI Genus, group, species and/or strain specific 16S rDNA sequences
- L3 ANSWER 5 OF 59 USPATFULL on STN
- ΤI Nucleic acid and polypeptide sequences from Lawsonia intracellularis and methods of using
- ANSWER 6 OF 59 USPATFULL on STN L3
- Identification of novel e2f target genes and use thereof ΤI
- ANSWER 7 OF 59 USPATFULL on STN L3
- Genomic barcoding for organism identification ΤI
- L3 ANSWER 8 OF 59 USPATFULL on STN
- ŢΙ Proteome epitope tags and methods of use thereof in protein modification analysis
- ANSWER 9 OF 59 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN L3
- Transcriptome profiling of lung schistosomula, in vitro cultured ΤI schistosomula and adult Schistosoma japonicum;

lung schistosomula, in vitro cultured schistosomula and adult Schistosoma japonicum transcriptome expression profiling for transcriptomics

- ANSWER 10 OF 59 MEDLINE on STN L3 DUPLICATE 1
- Dynamics of CD4+CD25+ T cells in spleens and mesenteric lymph nodes of ΤI mice infected with Schistosoma japonicum.
- L3 ANSWER 11 OF 59 Elsevier BIOBASE COPYRIGHT 2006 Elsevier Science B.V. on STN
- The transformation of betA gene into the pollen plantlets of Populus TT simoniixP. nigra
- L3ANSWER 12 OF 59 MEDLINE on STN DUPLICATE 2
- Design and validation of a partial-genome microarray for transcriptional TT profiling of the Bradyrhizobium japonicum symbiotic gene region.
- ANSWER 13 OF 59 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3 L3
- Isolation and mutagenesis of broad host range pBBR1-based plasmids having TT altered plasmid copy number
- L3ANSWER 14 OF 59 IFIPAT COPYRIGHT 2006 IFI on STN DUPLICATE 4
- ΤI BROAD HOST RANGE PBBR1-BASED PLASMID MUTANT DERIVATIVES HAVING ALTERED

## PLASMID COPY NUMBER

- L3 ANSWER 15 OF 59 CAPLUS COPYRIGHT 2006 ACS on STN
  - TI Identification of Rhizobium species clogging activated sludge separation membrane based on 16S rRNA gene sequence
  - L3 ANSWER 16 OF 59 USPATFULL on STN
  - TI Small molecule and peptide arrays and uses thereof
  - L3 ANSWER 17 OF 59 USPATFULL on STN
  - TI Gene products differentially expressed in cancerous cells and their methods of use II
  - L3 ANSWER 18 OF 59 USPATFULL on STN
  - TI Protein modification and maintenance molecules
  - L3 ANSWER 19 OF 59 USPATFULL on STN
  - TI Compositions and methods for treating diseases
  - L3 ANSWER 20 OF 59 USPATFULL on STN
  - TI Enzymes
  - L3 ANSWER 21 OF 59 USPATFULL on STN
  - TI Nucleic acid-associated proteins
  - L3 ANSWER 22 OF 59 USPATFULL on STN
  - TI Kinases and phosphatases
  - L3 ANSWER 23 OF 59 USPATFULL on STN
  - TI Protein
  - L3 ANSWER 24 OF 59 USPATFULL on STN
  - TI Secreted proteins
  - L3 ANSWER 25 OF 59 USPATFULL on STN
  - TI Enzymes
  - L3 ANSWER 26 OF 59 USPATFULL on STN
  - TI Compositions and methods for treating inflammatory disorders
  - L3 ANSWER 27 OF 59 USPATFULL on STN
  - TI Receptors and membrane-associated proteins
  - L3 ANSWER 28 OF 59 USPATFULL on STN
  - TI Protein modification and maintenance molecules
  - L3 ANSWER 29 OF 59 USPATFULL on STN
  - TI Therapeutic treatment methods 2
  - L3 ANSWER 30 OF 59 USPATFULL on STN
  - TI Manipulation of flavonoid biosynthesis in plants
  - L3 ANSWER 31 OF 59 USPATFULL on STN
  - TI Proteins associated with cell growth, differentiation, and death
  - L3 ANSWER 32 OF 59 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
  - TI Transcript enrichment of Nod factor-elicited early nodulin genes in purified root hair fractions of the model legume Medicago truncatula.
  - L3 ANSWER 33 OF 59 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN
  - TI Techniques for detecting genetically modified crops and products.

- ANSWER 34 OF 59 Elsevier BIOBASE COPYRIGHT 2006 Elsevier Science B.V.
- TI Expression levels of avrBs3-like genes affect recognition specificity in tomato Bs4- but not in pepper Bs3-mediated perception
- L3 ANSWER 35 OF 59 MEDLINE on STN DUPLICATE 5
- TI Symbiotic and saprophytic survival of three unmarked Rhizobium leguminosarum biovar trifolii strains introduced into the field.
- L3 ANSWER 36 OF 59 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN
- TI Directed evolution of copy number of a broad host range plasmid for metabolic engineering.
- L3 ANSWER 37 OF 59 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 6
- TI Assays and devices for detecting microbial contamination in animal by-products
- L3 ANSWER 38 OF 59 IFIPAT COPYRIGHT 2006 IFI on STN DUPLICATE 7
- TI QUANTITATIVE ASSAY FOR THE SIMULTANEOUS DETECTION AND SPECIATION OF BACTERIAL INFECTIONS
- L3 ANSWER 39 OF 59 IFIPAT COPYRIGHT 2006 IFI on STN
- TI QUANTITATIVE ASSAY FOR THE SIMULTANEOUS DETECTION AND SPECIATION OF BACTERIAL INFECTIONS; ADAPTATION OF THE REAL-TIME PCR ASSAY ALLOWS FOR HIGHLY SENSITIVE DETECTION OF ANY EUBACTERIAL SPECIES WITH SIMULTANEOUS SPECIATION. THE ASSAY RELIES ON A 'MULTIPROBE' DESIGN IN WHICH A SINGLE SET OF HIGHLY CONSERVED SEQUENCES
- L3 ANSWER 40 OF 59 USPATFULL on STN
- TI Vesicle-associated proteins
- L3 ANSWER 41 OF 59 USPATFULL on STN
- TI Adiponectin receptor and gene encoding the same
- L3 ANSWER 42 OF 59 USPATFULL on STN
- TI Detecting microbial contamination in grain and related products
- L3 ANSWER 43 OF 59 USPATFULL on STN
- TI Compositions and methods for treating neurological disorders and diseases
- L3 ANSWER 44 OF 59 USPATFULL on STN
- TI Compositions and methods for treating diabetes
- L3 ANSWER 45 OF 59 USPATFULL on STN
- TI Methods for improving plant agronomical traits by altering the expression or activity of plant G-protein alpha and beta subunits
- L3 ANSWER 46 OF 59 USPATFULL on STN
- TI Cpn60 targets for quantification of microbial species
- L3 ANSWER 47 OF 59 USPATFULL on STN
- TI Detecting hormonally active compounds
- L3 ANSWER 48 OF 59 USPATFULL on STN
- TI Detection and quantification of aromatic oxygenase genes by real -time PCR
- L3 ANSWER 49 OF 59 USPATFULL on STN
- TI Therapeutic treatment methods

- L3 ANSWER 50 OF 59 USPATFULL on STN
  - TI Method of selecting antimicrobial agent and method of using the same
  - L3 ANSWER 51 OF 59 USPATFULL on STN
  - TI Monitoring high-risk environments
  - L3 ANSWER 52 OF 59 . MEDLINE on STN DUPLICATE 8
  - TI Highly up-regulated CXCR3 expression on eosinophils in mice infected with Schistosoma japonicum.
  - L3 ANSWER 53 OF 59 CAPLUS COPYRIGHT 2006 ACS on STN
  - TI Expression of hemoglobin genes in actinorhizal plant (non-leguminous plant symbiosis with Frankia)
  - L3 ANSWER 54 OF 59 IFIPAT COPYRIGHT 2006 IFI on STN DUPLICATE 9
  - TI QUANTITATIVE ASSAY FOR THE SIMULTANEOUS DETECTION AND SPECIATION OF BACTERIAL INFECTIONS; ADAPTATION OF THE REAL-TIME PCR ASSAY ALLOWS FOR HIGHLY SENSITIVE DETECTION OF ANY EUBACTERIAL SPECIES WITH SIMULTANEOUS SPECIATION. THE ASSAY RELIES ON A 'MULTIPROBE' DESIGN IN WHICH A SINGLE SET OF HIGHLY CONSERVED SEQUENCES
  - L3 ANSWER 55 OF 59 USPATFULL on STN DUPLICATE 10
  - TI Histoplasma capsulatum catalase sequences and their use in the detection of Histoplasma capsulatum and Histoplasmosis
  - L3 ANSWER 56 OF 59 MEDLINE on STN
  - TI Pleiotropic effect of the insertion of the Agrobacterium rhizogenes rolD gene in tomato (Lycopersicon esculentum Mill.).
  - L3 ANSWER 57 OF 59 CAPLUS COPYRIGHT 2006 ACS on STN
  - TI Highly up-regulated CXCR3 expression on eosinophils in mice infected with Schistosoma japonicum
  - L3 ANSWER 58 OF 59 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
  - TI Detecting and determining species source of eubacterial DNA in a sample, comprises amplifying template DNA in the sample using a realtime polymerase chain reaction with the use of primers and at least two fluorogenic probes; bacterium DNA detection and polymerase chain reaction
  - L3 ANSWER 59 OF 59 USPATFULL on STN

=>

TI Modulation of mitochondrial mass and function for the treatment of diseases and for target and drug discovery

Proteomic analysis of soybean root hairs after infection

by Bradyrhizobium japonicum

AUTHOR: Wan J R; Torres M; Ganapathy A; Thelen J; DaGue

B B; Mooney B; Xu D; Stacey G (Reprint)

CORPORATE SOURCE: Univ Missouri, Natl Ctr Soybean Biotechnol, Dept Microbiol

& Plant Pathol, Columbia, MO 65211 USA (Reprint);

Maryville Coll, Dept Biol, Maryville, TN 37804 USA; Univ Missouri, Dept Comp Sci, Columbia, MO 65211 USA; Univ Missouri, Dept Biochem, Columbia, MO 65211 USA; Univ

Missouri, Proteom Ctr, Columbia, MO 65211 USA

staceyg@missouri.edu

COUNTRY OF AUTHOR: U

SOURCE: MO

MOLECULAR PLANT-MICROBE INTERACTIONS, (MAY 2005) Vol. 18,

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\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AΒ Infection of soybean root hairs by Bradyrhizobium japonicum is the first of several complex events leading to nodulation. In the current proteomic study, soybean root hairs after inoculation with B. japonicum were separated from roots. Total proteins were analyzed by two-dimensional (2-D) polyacrylamide gel electrophoresis. In one experiment, 96 protein spots were analyzed by matrix-assisted laser desorption ionization time-of-flight (MALDI-TOF) mass spectrometry (MS) to compare protein profiles between uninoculated roots and root hairs. Another 37 spots, derived from inoculated root hairs over different timepoints, were also analyzed by tandem NIS (MS/MS). As expected, some proteins were differentially expressed in root hairs compared with roots (e.g., a chitinase and phosphoenolpyruvate carboxylase). Out of 37 spots analyzed by MS/MS, 27 candidate proteins were identified by database comparisons. These included several proteins known to respond to rhizobial inoculation (e.g., peroxidase and phenylalanine-ammonia lyase). However, novel proteins were also identified (e.g., phospholipase D and phosphoglucomutase). This research establishes an excellent system for the study of root-hair infection by rhizobia and, in a more general sense, the functional genomics of a single, plant cell type. The results obtained also indicate that proteomic studies with soybean, lacking a complete genome sequence, are practical.

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TITLE: Identification of Rgg-regulated exoproteins of

Streptococcus pyogenes.

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AB Streptococcus pyogenes secretes many proteins that influence host-pathogen interactions. Despite their importance, relatively little is known about the regulation of these proteins. The rgg gene (also known as ropB) is required for the expression of streptococcal erythrogenic toxin B (SPE B), an extracellular cysteine protease that contributes to virulence. Proteomics was used to determine if rgg regulates the expression of additional exoproteins. Exponential- and stationary-phase culture supernatant proteins made by S. pyogenes NZ131 rgg and NZ131 speB were separated by two-dimensional electrophoresis. Differences were identified in supernatant proteins from both exponential- and stationary-phase cultures, although considerably more differences were detected among stationary-phase supernatant proteins. Forty-two proteins were identified by peptide fingerprinting with matrix-assisted laser desorption mass spectrometry. Mitogenic factor, DNA entry nuclease (open reading frame [ORF 226]), and ORF 953, which has no known function, were more abundant in the culture supernatants of the rgg mutant compared to the speB mutant. ClpB, lysozyme, and autolysin were detected in the culture supernatant of the speB mutant but not the rgg mutant. To determine if Rgg affected protein expression at the transcriptional level, realtime (TagMan) reverse transcription (RT)-PCR was used to quantitate Rgg-regulated transcripts from NZ131 wild-type and speB and rgg mutant strains. The results obtained with RT-PCR correlated with the proteomic data. We conclude that Rgg regulates the transcription of several genes expressed primarily during the stationary phase of growth.

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